

COMMITTEE HEARING
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)
)
Preparation of the 2005 Integrated) Docket No.
Energy Policy Report) 04-IEP-1K
)
Re: Availability of the 2005)
Committee Draft Energy Report.)
)
Challenges and Possibilities)
of Natural Gas (Chap 7))
_____)

CALIFORNIA ENERGY COMMISSION
HEARING ROOM A
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

FRIDAY, OCTOBER 7, 2005

1:05 P.M.

Reported by:
Peter Petty
Contract No. 150-04-002

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

COMMISSIONERS PRESENT

John Geesman, Presiding Member

James Boyd, Associate Member

Joseph Desmond, Chairperson

ADVISORS PRESENT

Michael Smith

Melissa Jones

STAFF and CONTRACTORS PRESENT

Kevin Kennedy

David Maul

Jairam Gopal

Mike Magaletti

ALSO PRESENT

Richard A. Myers
California Public Utilities Commission

Robert Freehling
Local Power

Mark J. Meldgin
Pacific Gas and Electric Company

Norman A. Pedersen, Attorney
Hanna and Morton, LLP
representing Southern California Generation
Coalition

Laurie K. Brown
Kern River Gas Transmission Company

Jane Turnbull
League of Women Voters of California

ALSO PRESENT

Audrey Chang
Natural Resources Defense Council

Joe Sparano
Western States Petroleum Association

Les Guliasi
Pacific Gas and Electric Company

Michael L. Eaves
California Natural Gas Vehicle Coalition

Sean Robledo Edgar
California Refuse Removal Coalition

Rich Ferguson
Center for Energy Efficiency and Renewable
Technologies

Joseph Lyons
California Manufacturers and Technology
Association

Barbara George
Women's Energy Matters

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P R O C E E D I N G S

1:05 p.m.

DR. KENNEDY: I suspect a number of you -- the same introductory presentation from me for the various hearings, but I'll run through it one more time.

Today, a similar problem this morning, there's a piece of the agenda that's missing from this slide. The first thing I'm going to do is a quick overview of the draft Energy Report chapter 7 on the challenges and possibilities of natural gas.

I'll then turn it over to the natural gas staff who will give a quick overview of the revised natural gas forecast.

And then we'll open the floor to comments on the IEPR chapter, and if anyone has comments on the revised forecast, we'll take those, as well. Remind folks that written comments are due on October 14th.

This is the last in a series of hearings that we have scheduled at this point on the draft. Initially the draft strategic transmission plan was the first hearing. Then we had a series of hearings on the individual chapters and topics

1 from the policy report.

2 We will also be doing a separate
3 transmittal report to the PUC. And we're in the
4 process of both trying to finalize the draft
5 report there and schedule the hearing that will be
6 held on that.

7 So, we're moving ahead. The written
8 comments, as I said, are due on october 14th. In
9 early November we'll be publishing the final
10 Committee versions of the Energy Report, the
11 transmission strategic plan and the transmittal
12 report.

13 New information for those of you who are
14 here this morning and at the previous hearings.
15 We're going to be having a business meeting in
16 mid-November to consider adoption of the various
17 policy reports. I've been consistently saying
18 that will be November 16th. We're now exploring
19 the possibility that we may need to move that to
20 the 18th. So, keep your eyes open for an
21 announcement of exactly when that business meeting
22 will be.

23 And then in early December we will
24 deliver the final reports to the Governor and the
25 Legislature.

1 In terms of the purpose of the Energy
2 Report proceeding overall, one of the key things
3 is to develop an integrated energy policy for the
4 state. It's also intended to help develop a
5 common information base that all of the state
6 agencies can use in their decisionmaking in terms
7 of energy policy.

8 This is a report that's adopted in its
9 full version, the one that we're considering this
10 year, every two years; with a supplement in the
11 off years.

12 I suspect enough of you have heard me
13 talk about the proceeding. I'll just sort of skip
14 over this, just to say we have had a lot of
15 participation from stakeholders, interest groups,
16 industry, et cetera. A lot of hard work from
17 staff and consultants. Without the participation
18 of everyone we would not have been able to have
19 had the very rich record which informed the policy
20 report. So I want to thank everyone for their
21 participation.

22 In terms of the key findings and
23 recommendations in the chapter on natural gas, we
24 note that California is the nation's second
25 largest consumer of natural gas. That about half

1 of the gas that's used instate is for power
2 generation. And as electricity demand grows the
3 demand for natural gas for power generation has
4 been increasing.

5 Natural gas for other uses is also
6 expected to increase as population in the state
7 grows. Residential gas use is expected to
8 increase 1.4 percent per year; in commercial by 2
9 percent per year.

10 Demand growth is expected to be lower
11 than in the rest of the nation, but still
12 projected to increase by .7 percent per year.
13 We'll be getting more details on that. And it
14 occurs to me I'm not sure that I double-checked
15 this against the revised forecast. We may get
16 slight variations on this when the natural gas
17 staff give their more detailed presentation on the
18 revised forecast.

19 One of the things that important to keep
20 in mind is that California's energy efficiency and
21 natural gas management programs have helped to
22 keep the wholesale prices in California below the
23 national benchmarks even after Hurricane Katrina.

24 Over the next decade residential gas
25 prices are forecast to be between \$9.75 and \$13.71

1 per thousand cubic feet. I think I'll skip
2 reading the rest of the details there. I suspect
3 we may get more along these lines from the natural
4 gas staff.

5 The PUC has authorized an additional \$20
6 million in funding for natural gas efficiency
7 programs in 2005. The PUC has also set aggressive
8 goals to double the annual gas savings by 2008,
9 and to triple the savings by 2013.

10 Combined heat and power facilities can
11 increase natural gas facilities in the state by
12 recycling the waste heat. And that can be an
13 important consideration moving forward.

14 In terms of natural gas supplies,
15 California currently imports 87 percent of its
16 natural gas. Domestic natural gas production is
17 expected to increase 1.6 per year over the next
18 decade, but is not expected to keep up with the
19 demand.

20 LNG import facilities under construction
21 will help meet California's additional natural gas
22 needs, and could affect the market prices in
23 California.

24 The key recommendations in the policy
25 report in terms of natural gas are a need to

1 increase the diversity of our natural gas
2 portfolio with LNG and other sources, such as
3 biomass gasification, landfill gas, et cetera.

4 To increase the efficiency of our use of
5 natural gas, including combined heat and power
6 facilities. That should play a larger role in
7 meeting the state's electricity supply needs.

8 The state also must efficiently and
9 equitably address safety, environmental and gas
10 quality issues for currently proposed -- I
11 apologize, that should be LNG projects, not LNC
12 projects.

13 And the state must make certain that
14 existing infrastructure is maintained and
15 retained, and to evaluate the need for additional
16 pipeline capacity to meet consumer needs for peak
17 summer and winter demand.

18 Jumping into my presentation I forgot to
19 welcome the folks listening in on the web or on
20 the phone. For folks who are listening on the
21 web, you can call in if you're interested in
22 making a comment. The call-in number is 888-790-
23 1711; the passcode is hearing; and the call leader
24 is Kevin Kennedy.

25 I'll leave a slide like this up when we

1 get finished with the staff presentations for the
2 folks on the webcast. If you're able to see the
3 presentations you'll have the phone number
4 available if you decide you want to call.

5 And with that I will turn it over to the
6 natural gas staff.

7 MR. MAUL: Good afternoon,
8 Commissioners. David Maul, Manager of the Natural
9 Gas Office. And with me is Jairam Gopal, the
10 Supervisor of our Natural Gas Unit. We have a
11 short presentation today.

12 We'd like to cover three things for you.
13 First, we'd like to discuss the differences
14 between the preliminary reference case versus the
15 revised reference case. And Jairam will go
16 through that presentation today.

17 On process, if you recall, we held a
18 hearing in December, almost a year ago, to look at
19 the modeling activities that we do here at the
20 Energy Commission in the natural gas area. We
21 then prepared information using publicly available
22 information. Put out a report in late June on the
23 preliminary natural gas assessment.

24 Held a workshop under your auspices in
25 July. And based upon that information have

1 revised the report, and the modeling effort had
2 produced a report to document that, which was
3 issued two weeks ago; and then the subject of
4 today's hearing, as well. And Jairam will go
5 through the differences between the two reports,
6 the preliminary and the revised reference case.

7 Also we'd like to quickly show some
8 information that we've done some initial analysis
9 in the area of assuming that we make a much more
10 aggressive energy efficiency investment in
11 California in the whole range of areas. This is a
12 very heroic assumption, but it shows what would
13 happen to natural gas prices and to overall
14 commodity costs here in California if we make that
15 level of investment here in California. And
16 Jairam will go through those slides, as well.

17 And then third, when Jairam is through
18 his discussion I'll come back and I'll raise one
19 issue regarding the coordination of the natural
20 gas activities through your Committee into the
21 PIER area, and looking at a very near-term
22 research opportunity that addresses the
23 opportunity for this winter's natural gas high
24 prices.

25 We're also available to answer any

1 questions you might have on either long-term or
2 short-term issues.

3 With that, Jairam.

4 MR. GOPAL: Good afternoon,
5 Commissioners and participants at the Integrated
6 Energy Policy Report proceedings.

7 My name is Jairam Gopal; I'm a
8 Supervisor in the Natural Gas Office at the Energy
9 Commission. As Dave Maul said, we will be talking
10 about what we have done to the preliminary case
11 that was presented earlier, which we now call the
12 reference case. Go through some of the changes
13 that we have done, the major issues.

14 Then we will go through some of the
15 highlights of what these numbers do mean to us and
16 what way they have changed. And then we will talk
17 about the second issue that's the sensitivity on
18 high efficiency programs; and how we can dream up
19 of one sensitivity to see what effects it has on
20 California prices and supplies.

21 Basically this is a long-term model just
22 to refresh your memory. We look at the horizon
23 for 2006 to 2016 in this particular analysis. In
24 the model, itself, we actually take the
25 projections right up to 2025.

1 Basically it looks like natural gas
2 supply/demand balance throughout the continent,
3 which is Canada, U.S. and Mexico. We looked at
4 the pipelines and pipeline corridors that supply
5 gas from the supply basin to the demand region.

6 We go through a iterative process to
7 come to a convergence on what this particular
8 balance will be for each year, for each node over
9 the entire time period.

10 One of the major changes that we decided
11 to make after the preliminary case that was
12 presented on July 14th was to look at the way LNG
13 facilities will be penetrating the North American
14 market. One big assumption made there was that
15 after 2010 there won't be an expansion of LNG
16 facilities due to the concern that there's going
17 to be a significant amount of safety issues and
18 other relevant issues involved.

19 Based on a lot of input from the parties
20 and from the Committee we have changed that
21 particular decision. Now we have assumed that
22 even beyond 2010 LNG facilities can expand if it
23 is economically viable. So basically the model
24 will determine the economic viability.

25 Let's look at some of the results based

1 on that. The second change on the LNG structure
2 that was made was we added one LNG facility on the
3 eastern Canadian seaboard. That was a facility
4 that was recently permitted, so we have made that
5 addition. it has a capacity of 1 billion cubic
6 feet per day. And the operational date for that
7 particular project is 2009.

8 Basically one of the assumptions we have
9 also made is that the eastern Canadian seaboard
10 facility receives natural gas, liquid LNG from
11 same supply regions as we have for the other
12 eastern seaboard, which is in Cove Point,
13 Maryland, New England and Georgia. And, again,
14 even this facility, we assume, can expand beyond
15 2010 based on economics.

16 This slide shows two graphs. The top
17 one shows the LNG input into the North American
18 continent in the preliminary case. And then what
19 happens when we expand it so that it can receive
20 more gas later on that's beyond 2010.

21 As you can see, beyond 2008 there was no
22 additions. It was a pretty flat level. It was
23 around 3-, 3.5 trillion cubic feet per year. But
24 once you let the model kind of expand on economics
25 you suddenly see a very significant growth.

1 Later on I will be showing a figure
2 which shows the different points of LNG, and
3 that's sort of highlighted in this graph.

4 This is the Gulf of Mexico inputs.
5 You'll find that Gulf of Mexico in the U.S. has
6 one of the cheapest resources available. So when
7 LNG comes in it has a tough time to actually
8 compete with the market. Whereas, if you look at
9 the eastern seaboard you find that there's a very
10 significant increase in price as you go up north
11 towards the New England markets. So you find that
12 LNG is going to be more competitive in those
13 regions. And that's why you see that the model
14 tends to expand eastern seaboard rather than the
15 Gulf.

16 And here's the top slide is on the
17 total, the eastern Canadian LNG facility. We
18 don't find that it's going to expand too much
19 simply because of the demand for it, as well as
20 the economics.

21 One thing to note is that the Altamira
22 numbers are not included in these charts. That
23 strictly almost supplies the rest of Mexico
24 demand. Haven't included it in these numbers.

25 The second change that we made in the

1 reference case was to look at the demand
2 projections in California. If you can remember,
3 most of the projections in the U.S. are based on
4 the EIA projections. For California we had used
5 EIA projections as the basis to determine the
6 parameters. In the preliminary case we had also
7 used the population growth same as Department of
8 Finance growth numbers so that we are consistent
9 with the demand projections put out by the demand
10 analysis office.

11 As a result, because the starting point
12 was different in the two, we had a significantly
13 different set of projections based on the two
14 analyses. We went back to our database. We are
15 actually now using the California base numbers
16 just as the demand office is using. This
17 certainly results in a more compatible and
18 comparable estimates.

19 Note here that the demand analysis
20 office projections are developed based on the
21 macroeconomic parameters in the office. The NARG
22 model, it's the result of what comes out of the
23 model. The residential, commercial and industrial
24 demand in this analysis is based on the inelastic
25 modeling for a set of parameters. So there is a

1 particular demand that comes out of the model to
2 be comparing it here.

3 Total California compare is pretty
4 close. Residential and commercial are also
5 relatively close. The only main difference is in
6 the industrial, which is the NARG model predicts
7 marginally lower projection than we have in the
8 demand office projections. Overall it's not too
9 significant, and we feel like we certainly do have
10 a good level of consistency with the two
11 projections.

12 The change that we made in the final
13 reference case was the assumption on Arctic gas
14 availability. Basically we have two pipelines,
15 the MacKenzie pipeline providing gas from the
16 MacKenzie Delta into Canada. And, of course, it
17 can displace a lot of the Canadian gas back into
18 the U.S.

19 And the second one is the Alaskan gas,
20 which is going to come around the Bend, enter
21 Canada, Alberta, and then from there into the
22 lower 48 states.

23 In the preliminary case, based on
24 information that was then available we had assumed
25 that the MacKenzie would come in at 2010, while

1 the Alaskan was scheduled to come in at 2013. We
2 have put them forward by three years based on the
3 information that we have generated so far.
4 Basically we are looking at the permitting
5 timelines acquired, and the construction timelines
6 acquired.

7 So under the final reference case we are
8 assuming that the MacKenzie pipeline will come
9 into operation only by 2013, when the Alaskan
10 pipeline will come into operation by 2016. Of
11 course the Alaskan pipeline may not have too much
12 significance as far as the forecast horizon that
13 we have, but we do understand that it can have
14 earlier implications.

15 This is a comparison -- the flow rates
16 based on the two different assumptions, and you
17 can clearly see the extent of change that's
18 produced by putting these pipelines off into the
19 future. And both these pipelines, again, in the
20 modeling analysis, shows that they will fill up
21 the capacity that we start off at.

22 Some of the other assumptions that we
23 did go through was to look at Mexican demand
24 numbers. We compared it with, for example, the
25 Baja, California numbers, we compared it with what

1 was assumed in the other studies in the IEPR.

2 We looked at LNG costs; made sure that
3 they were correct and consistent. Looked at
4 California level of production which was a little
5 high in our preliminary case. And we also looked
6 at Canadian demand for oil sand productions.
7 Found that they were still consistent with what
8 was being assumed by NEP and the other entities
9 that had some forecasts available for review.

10 Finally after going through all these
11 changes these two graphs were compared. Natural
12 gas prices by sector in California. The two
13 graphs are slightly misaligned just so that I get
14 the axis for the price projections similar so you
15 can easily observe the difference in price levels
16 in the two cases.

17 As you can see with LNG coming in it
18 certainly has a significant pressure on putting
19 prices down. We find that the overall prices,
20 even in California, drops as a result of LNG
21 expanding beyond 2010.

22 If you remember looking at the chart
23 earlier, majority of the expansion was on the east
24 coast; there was some expansion in the Gulf.
25 There's not too much of an expansion in the Baja,

1 California terminal. But despite that, overall
2 continental prices do certainly drop compared to
3 the two cases.

4 All the dollar amounts here are
5 expressed in 2004 dollars per mcf, even though the
6 model is based on 2000 dollars per mcf.

7 Having gone through these I just wanted
8 to have one more slide here to show the impact of
9 these changes on the infrastructure that's going
10 to support California over the next ten years.

11 Basically this chart shows some of the
12 pipelines that serve California. We are looking
13 at the Canadian gas. This is the TransCanada
14 pipeline's GTM pipeline coming from Canada. This
15 is the Kern River. And here you have -- this is
16 the Kern River pipeline here coming right into
17 southern California. El Paso Northern system, El
18 Paso Southern system supply the Topock and
19 (inaudible) points here. This piece is the North
20 Baja pipeline, which takes gas from Ehrenberg all
21 the way into Mexico.

22 The assumptions about the reversal of
23 North Baja, Mexico pipeline, when LNG does come
24 in. Still continues to be the same that we expect
25 that this will turn around. LNG is going to flow

1 up to Ehrenberg and then find its way into several
2 of the regions.

3 Over the next ten years, given the level
4 of demand that we have, and the potential for LNG
5 to come in, this shows the capacity utilization
6 and all the pipelines that serve California.

7 The only pipeline that we see really
8 expanding is the TGN pipeline. This comes from
9 Rosarito Beach and enters San Diego. The current
10 capacity that we have in the model for that
11 pipeline is 175 million cubic feet per day. We
12 find that the model tends to pull a lot more LNG
13 from Baja, California in the future once LNG does
14 come in. And the pipeline wants to almost double
15 its capacity. I believe SoCalGas and SDG&E have
16 already done a lot of analysis and they have
17 presented it in various other forums, on their
18 ability to expand capacity to get gas into San
19 Diego.

20 We find that the other pipelines that do
21 have the sufficient capacity over the next ten
22 years. Then again I want to caution here that we
23 are looking at annual average numbers. And that's
24 certainly not the way the market operates on a
25 day-to-day basis. So we are going to have a

1 number of occasions or situations when there is
2 going to be tightness in the market depending on
3 the ability of supplies to meet the state and the
4 ability of consumers to take those supplies. And
5 finally, the demand for natural gas in the state.
6 These things can vary significantly day to day,
7 season to season. So we are going to see some
8 tightness because of those assumptions. This sort
9 of concludes the section on the reference case and
10 the changes related to it.

11 Now I will talk a little bit, I have
12 four more slides on sensitivity, on high
13 efficiency programs. Basically this sensitivity
14 was looked at to understand what is going to
15 happen if we do have a significant amount of
16 penetration of high efficiency programs within the
17 state.

18 One of the major things that we have
19 done here is to be a little bit heroic in
20 secondary assumptions for it. We have assumed
21 numbers not with a very concrete analysis of how
22 the market actually performs, but more on basis of
23 how far can we go in this particular trend.

24 Second, the changes have been made only
25 in California, so we do not assume that same level

1 of penetration of high efficiency parameters or
2 techniques and methodologies not implemented in
3 the other regions in this particular case.

4 We assumed that efficiency improvements
5 will be done on all sectors of residential and the
6 commercial in terms of new buildings appliance
7 standards. We going to look at efficiency
8 improvements in the industrial based on how steam
9 boilers or the other industrial equipment can be
10 modified due to technological availability.

11 And finally, on the power generation,
12 there are two aspects that we have assumed will
13 happen. One is efficiency on the electricity use
14 is going to reduce the demand for electricity.
15 Consequently demanding less gas for electricity
16 generation in California.

17 And the second thing is that there will
18 be some new technologies available. CHP, for
19 example, is a standing example that we have talked
20 about quite a bit. There could be other
21 technologies such as recalling or replacing some
22 of the older units, which will probably not
23 provide too much of a changing of gas demand, but
24 only a little bit because those units do not
25 operate on a very high load factors.

1 So again, I want to caution that this is
2 not based on any particular analysis of resource
3 utilization, but rather just a broader assumption.

4 Let's take a look at what we expect in
5 terms of reduction. Residential, commercial and
6 industrial demand, we assume that current programs
7 will continue, but we will have higher efficiency
8 standards, the appliance and building levels going
9 up to 8 percent reduction in 2010.

10 And once that is implemented the amount
11 of level goes down again over time. And then
12 probably 2018 or so it picks up again.

13 Now, these numbers are certainly higher
14 than whatever numbers that were available in other
15 demand analysis office studies that were looked
16 at. Because those changes would not make much of
17 an impact that we thought we had to go to a higher
18 level of reduction.

19 For gas demand in the power generation
20 sector we looked at two different parameters which
21 could reduce demand. This is based on a very
22 simple estimation that we go from a reduction of 0
23 percent almost the way we are today in 2007, and
24 continues to almost 7.5 percent by 2016.

25 The basic assumption went up to 15

1 percent reduction in gas demand in power
2 generation in 2025.

3 Again, we feel that these were pretty
4 huge assumptions. When we did go through the
5 model, this chart shows you the level of decrease
6 in gas demand in California throughout this
7 process.

8 This is the total demand gas demand
9 growth in California, the blue line. That is
10 growing at a rate of around .7 percent per year.
11 And then given the two sets of changes that I
12 mentioned earlier, we find that gas demand drops
13 slowly at first, but certainly at a greater pace
14 over in the future. A significant portion of this
15 is contributed by the reduction due to power
16 generation technologies.

17 This, compared to 2006, it actually goes
18 down by .14 percent, almost flat on an annual
19 average term. But it goes down certainly
20 significantly here, and then picks up again. But
21 certainly does not go too much beyond what we
22 already have as demand projections right now.

23 So we ran these results and we find
24 that, let me talk a little bit about what the
25 lines are here. Each of these lines show

1 different sectors. For example, the pink and the
2 magenta line on top are residential. The solid
3 line is the one which represents the reference
4 case; and the dashed line represents the high
5 efficiency case.

6 We find that these results -- even
7 though we have made such reductions in California
8 they do not change too much. Similarly for other
9 sectors in SoCalGas area which show the
10 commercial, industrial and power generation down
11 below.

12 Looking at PG&E again, this is the
13 residential, the commercial and the industrial
14 sectors. Again, there's not much of a change.
15 Extremely small changes in some of these sectors,
16 but no real drastic price change.

17 SDG&E, it's the same story. I'm not
18 going to spend any time on this one in the detail,
19 but we see a similar kind of impact in SDG&E.

20 Finally, this is on the power gen
21 sectors. Again, not too much of a change. Some
22 slight modifications here and there. But, again,
23 really it's not dramatic.

24 The reason again why we observe this is
25 even though we have reduced California

1 consumption, the gas that we depend on is still
2 coming from other places. Kevin already talked
3 about 87 percent of California's consumption
4 coming from outside California. So the amount of
5 reduction that we have in California alone is
6 really not enough to wag this big dog, which is
7 going to be based on Henry Hub, Canadian prices,
8 Rocky Mountain prices, which are, again,
9 controlled by what happens on the national level.

10 So one of the things that I learned from
11 this is that in order to make some really big
12 impact, it's not just one state that has to
13 improve its efficiency, but it should be on a
14 larger scale.

15 PRESIDING MEMBER GEESMAN: Now that
16 would seem to be at variance with the analysis
17 that the staff put forward in the 2003 IEPR.
18 Would you agree with that?

19 MR. GOPAL: I'm not too sure if we had
20 made some assumptions on other regions, too. In
21 2003 we had assumed that even the other states
22 would have similar kinds of reductions in gas
23 demand.

24 The power generation, for example, we
25 had actually gone through an exercise to determine

1 now much of a drop in power demand would be there
2 to each of the western regions. And we had made
3 an assumption that a similar reduction would be
4 there in the eastern states.

5 PRESIDING MEMBER GEESMAN: Okay.

6 MR. GOPAL: If we do that, I'm sure that
7 we will see a different set of results.

8 Finally, assume that now California has
9 certainly reduced its demand consumption
10 significantly over time. It is certainly going to
11 mean that there will be some savings, even though
12 the price did not change. The sheer fact that we
13 are now using significantly less gas at whatever
14 the price levels were, these graphs show the
15 billions of dollars saved as a result of that
16 reduction.

17 Again, remember that the assumption that
18 we have made here are pretty heroic. So if you
19 actually go through actual construction of how
20 reductions can be effected, we may not really see
21 the level of up to \$2 billion per year. It'll
22 certainly be less than this.

23 But this, again, was a sensitivity case
24 which is based on very optimistic assumptions, and
25 gives us an idea of what we can do in terms of

1 savings.

2 The other caution that I do have on this
3 one is, of course, I have not included any costs
4 involved in going through these efficiency
5 parameters. So if you consider the cost
6 effectiveness, then you will certainly see that
7 the savings are not this high. They would
8 certainly be less than this amount.

9 But that analysis was beyond the scope
10 of this particular sensitivity case, and not
11 conducted here.

12 If there are any burning questions I
13 will now take it up. Otherwise, it's Dave.
14 Richard.

15 MR. MYERS: Jairam, I'm interested in
16 the --

17 PRESIDING MEMBER GEESMAN: Could you
18 come up to the microphone?

19 MR. MYERS: I'm Richard Myers with the
20 California PUC. I'm interested in the graph of
21 prices on page 42 of the reference case. And I'm
22 wondering why the prices are so markedly
23 different. I think from, I guess market
24 expectations and it appears to be the prices even
25 lower than the earlier draft report. Could you

1 explain why?

2 MR. GOPAL: In comparison to the
3 preliminary case the prices here are certainly
4 lower for basically the one primary reason is that
5 we had LNG capped in that particular primary case.
6 But once you let LNG expand, you're going to see a
7 significant amount of cheaper gas coming into the
8 continent. That's going to bring your relative
9 prices down.

10 That was the primary reason for the
11 prices to drop when compared to the preliminary
12 case.

13 Second, why are the prices so low. We
14 are in the range of \$4 to \$6 here. As I said,
15 this is based on long-term resource analysis. So
16 we are looking at the long term. We are not
17 looking at what happens in the short term.

18 Of course, the next few years are
19 certainly not what we see here, for example. We
20 do not, in this model, consider any effects of
21 Hurricanes Katrina or Rita. We do not, in fact,
22 incorporate any of the seasonal upsurge we have in
23 power generation or gas event numbers.

24 So that's one of the reasons why, if you
25 look at it from a long-term perspective, you're

1 not going to see the impacts and you will
2 certainly not be able to duplicate today's prices,
3 unless you go and fix it so that it comes to some
4 higher price. Which is not the way one would do a
5 modeling of this nature.

6 Because there's really no way that you
7 can tell the model that your gas molecule is going
8 to cost you \$20 today, but it's going to cost you
9 only \$10 later on.

10 If you look at the NYMEX, again you see
11 the decline. And it is possible that we may have
12 to implement the procedure that was used in the
13 2003 IEPR where you use NYMEX in the first few
14 years. And then merge it with the fundamental
15 forecast for longer term analysis.

16 Hope it answered your question.

17 PRESIDING MEMBER GEESMAN: Would the
18 influence of moving the Alaska project and
19 MacKenzie project further out in time also cause
20 your price comparison with the earlier case to go
21 down?

22 MR. GOPAL: Moving the Alaskan and
23 MacKenzie pipelines still out in the time horizon
24 will tend to raise earlier prices up because the
25 cheaper gas is not going to come as quickly.

1 PRESIDING MEMBER GEESMAN: So you were
2 assuming then that Alaska and MacKenzie were
3 cheaper than LNG?

4 MR. GOPAL: No, I don't think it was
5 cheaper than LNG. LNG is certainly cheaper than
6 Alaska gas. The transportation cost, itself, is
7 pretty high for the Alaskan and MacKenzie gas.

8 PRESIDING MEMBER GEESMAN: But wouldn't
9 moving those further out in the forecast period
10 cause you to bring in more --

11 MR. GOPAL: More LNG.

12 PRESIDING MEMBER GEESMAN: -- more LNG?

13 MR. GOPAL: And therefore it's going to
14 drop our overall prices even more, yes, that's
15 right.

16 PRESIDING MEMBER GEESMAN: Okay.

17 MR. GOPAL: Yes?

18 MR. FREEHLING: Robert Freehling of
19 Local Power. Your initial range there in the
20 near-term future is, I understand, \$3 to \$4 per
21 mmBtu, is that correct, in the model in the
22 starting point?

23 MR. GOPAL: That's the wellhead price.

24 MR. FREEHLING: That's -- oh, wellhead
25 price, okay.

1 MR. GOPAL: Yeah, wellhead price. Yeah.

2 MR. FREEHLING: All right. But the fact
3 is that the increasing trend i price has been
4 going on now for a few years, and it's not only
5 relative to the change in prices due to the recent
6 events and the hurricanes and so forth.

7 And I don't see any of that reflected
8 in, I mean you see a baseline -- I used to do
9 stock charts, and you see a baseline trend in the
10 price going up at about that steep an angle over
11 about a three- or four-year period.

12 MR. GOPAL: Um-hum.

13 MR. FREEHLING: And so I'm wondering do
14 you see some factor immediately changing that
15 would change that trend that's been going on now
16 for years?

17 MR. GOPAL: Certainly the \$16 level that
18 you see today will certainly be dropping.

19 MR. FREEHLING: No, I'm not referring to
20 that. I'm referring to the low point -- when you
21 do charting of a price trend you chart the low
22 part in the return that that refers to the base
23 point at which traders will buy into a commodity.
24 And what's called the support price.

25 That is the point which you trace the

1 long-term trend on price. And I'm wondering why
2 that isn't reflected. Usually there would have to
3 be some fundamental in the market like
4 availability of more supply, or an expected
5 significant change in demand or some other market
6 factor that would change that longer term trend.

7 So I'm wondering if you see something
8 like that going on in the near future.

9 MR. GOPAL: Will have to take a better
10 look at what the support prices are and how
11 they're trending, yeah.

12 MR. FREEHLING: Okay, all right.

13 MR. GOPAL: I can't tell you right now.

14 MR. FREEHLING: I'm asking a hard
15 question, I know, but --

16 MR. GOPAL: Yeah.

17 PRESIDING MEMBER GEESMAN: Well, the way
18 we dealt with that contradiction in 2003, because
19 this same contradiction existed in 2003 and we
20 were probably off current market prices the same
21 by similar magnitude, was we substituted NYMEX
22 prices for the early years compared to with what
23 Jairam's forecast showed.

24 And as he mentioned earlier, we may want
25 to do that again this time.

1 MR. FREEHLING: Um-hum, okay. Thank
2 you.

3 MR. MELDGIN: I'm Mark Meldgin with
4 PG&E. I wanted to understand in your final case
5 how much LNG comes ashore on the west coast of the
6 United States? In other words, ignoring Baja.
7 Does any come on at all in this model?

8 MR. GOPAL: In the final reference case
9 Baja terminal is operated at 1 bcf a day
10 assumption. It fills up to 1 bcf a day for quite
11 a few years. And I think it's beyond 2011 that it
12 tends to expand a little bit, but not much.
13 Overall it's around 1 bcf a day.

14 MR. MELDGIN: Does any flow from any of
15 the proposed terminals in southern California?

16 MR. GOPAL: No, none at all.

17 MR. MELDGIN: Okay, --

18 MR. GOPAL: In the reference case we
19 don't have any other terminal in southern
20 California turned on.

21 MR. MELDGIN: And how about the rest of
22 the U.S. west coast, the proposals in Oregon and
23 so on?

24 MR. GOPAL: None of them are turned on.

25 MR. MELDGIN: Okay, --

1 MR. GOPAL: So Baja, California is the
2 only LNG terminal turned on on the west coast.

3 MR. MELDGIN: Thank you.

4 MR. GOPAL: Any other questions? Dave.

5 MR. MAUL: Thank you, Jairam. The last
6 item that we'd like to cover very quickly is, as
7 you well know the prices are high right now as a
8 result of several items. The hurricanes
9 particularly have driven prices up, market prices
10 up quite rapidly here the last month or so. And
11 we do expect prices to be very high during this
12 wintertime.

13 Looking at this from a research
14 perspective, we've been working trying to
15 integrate policy with analytical work, with
16 research work, and working with our PIER natural
17 gas staff in trying to figure out if there's a
18 research opportunity that we should be preparing
19 for now instead of after the fact.

20 And it occurred to us that in the 2001
21 electricity crisis we looked at the effect of high
22 electricity prices on customer behavior and how
23 people changed their behavior at various times.
24 And unfortunately, people did not anticipate that
25 in advance, and so the analysis of trying to

1 correlate both system responses as well as
2 customer behavior responses to high electricity
3 prices was only analyzed from a research
4 perspective after the fact.

5 And our PIER natural gas staff have
6 suggested that there's an opportunity for us to do
7 some research on customer behavior, system
8 behavior of the natural gas system based upon what
9 we expect to be some very high natural gas prices
10 to customers this coming wintertime. And it will
11 be appropriate for them to do some additional data
12 gathering and some analysis and some surveys.

13 And we're making this announcement today
14 so that Mike Magaletti, if you could stand back
15 there quickly, and Steven Schiller, is Steven
16 here. Okay, Steven there. Our PIER natural gas
17 staff. And they would like some guidance and
18 advice from the parties that are here. And you
19 can contact them at a later time, either through
20 myself or Mike directly. Mike, what's your phone
21 number?

22 MR. MAGALETTI: 654 --

23 MR. MAUL: 916-654 --

24 MR. MAGALETTI: 4599.

25 MR. MAUL: -- 4599.

1 MR. MAGALETTI: And I hesitate to
2 mention this, --

3 MR. MAUL: You've got to come to the
4 mike if you want to be heard.

5 So we're trying to take advice on how
6 the PIER Staff should be constructing their
7 research efforts to make it as useful as we can to
8 help guide future policymakers on the effects of
9 future price effects. Because obviously that has
10 occurred now twice in recent years, and it may
11 happen again in the future.

12 MR. MAGALETTI: The thing I hesitate to
13 mention is that we do have money available for
14 this activity. So, this is not something that
15 we're going to be asking participants to fund on
16 their own. But, of course, we are interested in
17 any and all support. But we see this as a major
18 opportunity.

19 As Dave said, when the electricity
20 crisis hit we thought something was happening but
21 it was too late to prepare for it from a research
22 perspective. This time around NYMEX, all the
23 signals are widely recognized as presenting us
24 with a price storm this winter. And we intend to
25 be ready to both gather the data and then

1 eventually analyze it on the system performance
2 and on customer performance.

3 MR. MAUL: Good, thank you, Mike. That
4 concludes the staff's presentation. The staff is
5 available for any questions on either the long-
6 term work that we have, the policies that are in
7 the IEPR, or any other short-term issues that you
8 may wish to address. May I suggest that we take
9 parties' questions for right now.

10 PRESIDING MEMBER GEESMAN: Questions,
11 Commissioner Boyd?

12 ASSOCIATE MEMBER BOYD: Dave, we have a
13 letter here from Kern, and I assume therefore
14 they're not -- they are testifying. Well, then
15 maybe I should not -- let's wait till they testify
16 and see what their points are. I was afraid maybe
17 they weren't, thus the letter. I'll wait.

18 PRESIDING MEMBER GEESMAN: Okay, we'll
19 use the blue card technique. The first one up is
20 Norman Pedersen, Southern California Generation
21 Coalition.

22 MR. PEDERSEN: Good afternoon,
23 Commissioners. My name is Norman Pedersen. I'm
24 here for the Southern California Generation
25 Coalition.

1 SCGC members own or control 12,000
2 megawatts, roughly 12,000 megawatts of capacity
3 located in the greater Los Angeles load center.
4 First, I'd like to make something of a prefatory
5 remark.

6 In our view, the draft IEPR is
7 absolutely correct in identifying the number one
8 problem that California has today, and that's how
9 we get increased supply so we can start to have
10 some supply side downward pressure on the kind of
11 prices that we are seeing and that we're going to
12 see. And we'd like to commend this Commission for
13 its leadership role in seeing to it that one way
14 or another we'll have new LNG supplies coming into
15 California.

16 We believe that LNG is a big part of the
17 key to addressing the problem, and we strongly
18 encourage you to continue your efforts towards
19 seeing that we get some LNG coming in so that we
20 will have the kind of downward pressure on prices
21 that we do believe we need to have.

22 However, that's a big picture issue.
23 I'm actually here today to talk about a narrower
24 issue. The primary concern that brings me here
25 today is one of the policy issues raised in the

1 staff report in support of the draft IEPR. And
2 that policy issue is stated as should the state
3 require a guarantee of firm fuel delivery for firm
4 electric supply.

5 We urge you not to adopt that policy
6 recommendation. We think it's unnecessary,
7 impractical. It would conflict with the state
8 policy of expanding fuel diversity. And we think
9 that there are better alternative approaches.

10 First, requiring that EGs guarantee a
11 firm supply of fuels, a condition for offering
12 firm electric supply, we believe, as I stated, is
13 unnecessary. Gas supply reliability depends
14 primarily upon the physical adequacy of
15 transmission and storage infrastructure.

16 As for the physical adequacy, as Mike
17 Florio testified several weeks ago in the
18 proceeding at the PUC, California actually has
19 some very good news. And that is we do have
20 adequate infrastructure. At the interstate level
21 since the 2000/2001 energy crisis we've added
22 approximately 2 bcf of gas transmission capacity;
23 at the intrastate level we've added approximately
24 a bcf of transmission capacity.

25 As far as local transmission is

1 concerned, we have no problems on PG&E. We were
2 delighted to hear at the infrastructure hearings
3 that the PUC was holding a couple of weeks ago
4 that PG&E's policy is to timely expand local
5 transmission whenever necessary to meet its
6 service obligation to its customers.

7 In southern California we do have some
8 constraints. Three local transmission areas are
9 potentially constrained, south San Joaquin,
10 Imperial Valley, San Diego. There were open
11 seasons held just earlier this year. Two of those
12 three were found not to be constrained, south San
13 Joaquin and San Diego.

14 A third area was found to be
15 constrained; that was the Imperial Valley.
16 However, just earlier this week, on Tuesday of
17 this week, the Imperial Irrigation District Board
18 approved a precedent agreement to proceed with a
19 pipeline that would extend from North Baja into
20 the Central Valley. It would go directly to IID's
21 El Centro generating station, bypassing SocalGas.

22 Upon construction of that pipeline all
23 the constraints in the Imperial Valley will
24 certainly be alleviated. And at that point it
25 looks like we'll have no problems in California at

1 the local transmission level.

2 So, in sum, we think we've got adequate
3 capacity at all levels, and that's really the key
4 to assuring that we have reliable supply for
5 electric generation facilities.

6 Second, we think that requiring the
7 guarantee of firm supply, requiring EGs to
8 guarantee firm supply would be impractical. As
9 this Commission well knows, gas-fired EGs serve
10 swings in electrical demand. That requires last-
11 minute changes in fuel supply plans.

12 Currently last-minute changes in fuel
13 supply demand are met through short-term
14 purchases. Also through swinging within the
15 balancing requirements of the serving gas
16 utilities. These mechanisms have worked.
17 Requiring commitments of firm supply, such as firm
18 storage capacity or firm pipeline capacity, to
19 meet all swing conditions, all peak needs would be
20 unduly costly. The current mechanisms are working
21 well.

22 Another practical problem, of course,
23 would be just what would be the standard that
24 would be imposed upon electric generators.

25 Third, we think that requiring EGs to

1 guarantee firm delivery, fuel supply delivery
2 mechanisms would be contrary to the state policy
3 encouraging fuel diversity. On at least the
4 SoCalGas system if an electric generator wants
5 firm, full requirements service, the electric
6 generator can't take advantage of alternative
7 fuels such as landfill gas or refinery gas.

8 Most electric generators do take firm
9 full requirement service. There are exceptions.
10 The City of Glendale is on interruptible service
11 because they it wants to use landfill gas.
12 Williams Redondo Beach plant is on interruptible
13 service because it wants to have the option of
14 using refinery gas, which it does use.

15 If a policy such as that suggested in
16 the staff report were adopted that would run
17 contrary to using alternative fuels for electric
18 generation needs.

19 And lastly, we think that there are
20 better approaches than what's proposed in the
21 staff report. Primarily contractual provisions
22 that would address the firm requirements
23 associated with electric supply.

24 So, we think the requirement as
25 suggested in the staff report is, as I said,

1 unnecessary, impractical, would conflict with
2 other state objectives, and we think there are
3 better approaches.

4 So, thank you very much. And again,
5 please keep up the good work on bringing LNG into
6 California.

7 PRESIDING MEMBER GEESMAN: Thank you,
8 Mr. Pedersen. Laurie Brown, Kern River Gas
9 Transmission.

10 MS. BROWN: Good afternoon,
11 Commissioners. Kern River appreciates the
12 opportunity to provide comments to you today. You
13 do have a copy of our letter, but for the benefit
14 of the audience and the folks who have called in
15 I'd like to go over a few of the points we make in
16 our letter.

17 Kern River transports up to 2 bcf a day
18 on our pipeline of gas from Wyoming to markets in
19 Utah, Nevada and California. And we are extremely
20 interested in the future energy requirements of
21 California, and especially the adequacy of the
22 infrastructure to accept gas into the system here.

23 For the most part we agree with what the
24 report states, but we do have concerns with what
25 we feel like is an omission from the report. And

1 that is that there was very very little emphasis
2 on the Rockies' production and the benefits that
3 the Rockies can provide to California.

4 The report indicates that due to major
5 constraints in North America and declining -- I'm
6 sorry, due to the decline of the major basins in
7 North America and the concern that it's
8 uncertainty of supply and I guess the resulting
9 increase in gas price the Committee has looked, or
10 perhaps the Commission, is looking to put the
11 focus on LNG. And we certainly do not dispute
12 that LNG is certainly a viable option for
13 California's future supply mix.

14 However, the Rocky Mountain Basin does
15 provide right now immediate benefits with lower
16 risk and greater certainties of delivery. And we
17 would like it just to be looked at as another
18 alternative to help the downward pressure on gas
19 prices.

20 The Rockies has proved reserves of 83
21 tcf a day, and 125 tcf of potential reserves.
22 Currently, in 2004, the Rockies produced 8.2 bcf a
23 day, and is forecast to actually increase to over
24 9 or up to 10 bcf a day by 2009. That's a pretty
25 substantial increase.

1 However, as the report generally
2 addresses that there is a lot of competition for
3 gas supply. And right now the report indicates
4 that the Arizona power plants could create a
5 concern with 8000 new megawatts coming onboard.
6 The only thing that's addressed in the report is
7 that the concern is that if all the plants during
8 a peak day pull gas from the pipeline through
9 Arizona it would decrease the pressure of the
10 pipeline, therefore potentially the capacity
11 delivered to California.

12 What the report fails to address is the
13 plants in Arizona will also be competing for
14 natural gas for those plants to actually generate
15 that electricity.

16 Also, there's no mention of the power
17 plants in Nevada that have recently come online;
18 300 megawatts have come online, and the
19 combination of the two states' generation could
20 potentially pull 2 bcf a day of gas away from
21 California.

22 There also are a number of large
23 pipelines proposed to take gas out of the Rockies.
24 The producers need the gas to go somewhere and
25 right now the pipelines out of the Rockies are

1 full. So there are several proposals to take
2 Rockies east right now. The Cheyenne's Plains was
3 recently constructed. That will take up to 730
4 million cubic feet a day of gas to the midwest, or
5 the Cheyenne Hub which then interconnects with
6 pipelines that would serve the midwest.

7 El Paso's -- well, they soon will
8 complete the line 1903 project. And that will
9 take up to 250 bcf a day of Rockies gas from Kern
10 River at Daggett to markets in Arizona, as will
11 also 300 million a day of gas on El Paso's
12 northern system that typically headed for
13 California will now be turned to Arizona.

14 El Paso also recently constructed the
15 Cheyenne Plains pipeline and that will take up to
16 730 million decatherms a day of gas -- I mentioned
17 that one.

18 El Paso's recently proposed continental
19 connector project, which is 1000 miles of
20 pipeline, would actually take 1 to 2 bcf of gas
21 all the way back to the east coast. And, of
22 course, Kinder Morgan and Sempra pipelines are
23 jointly proposing a similar project, 1500 miles of
24 pipeline to take up to 2 bcf a day of Rockies gas
25 to the coast.

1 So our recommendation is that if the
2 report could focus on the importance of California
3 stepping up and contracting for long-term supply
4 and transportation, that it has the opportunity to
5 capture some of that Rockies gas now. If it does
6 not, that gas will go east and you may lose the
7 opportunity to have the diversity of gas supply
8 that you're looking for.

9 And last, I won't go into a lot of
10 detail, on the adequacy of the infrastructure in
11 California, Kern River has recently been very
12 active in some of the Public Utilities
13 Commission's OIR hearings.

14 And we would like to stress that if the
15 Commission continues to look at the infrastructure
16 being adequate on just an annual average basis,
17 that when that peak day comes and there is, you
18 know, the typical potential crisis for electricity
19 and natural gas in the state, there's very good
20 potential that customers will not receive that
21 service.

22 What we really would like to do is have
23 the Commission -- I think the report does
24 indicate, makes this recommendation that the
25 Commission should look at the adequacy of

1 infrastructure under extreme conditions.

2 We'd also encourage the Commission to
3 also look at the adequacy of receipt points, not
4 just backbone transmission capacity, but receive
5 point capacity to insure that you can have gas-on-
6 gas competition which should drive down the price
7 of gas to consumers in California.

8 I won't go into more detail, you have
9 the letter in front of you. But I appreciate the
10 opportunity to speak in front of you today. Be
11 happy to answer any questions you have.

12 PRESIDING MEMBER GEESMAN: Thank you
13 very much.

14 ASSOCIATE MEMBER BOYD: I'd like to just
15 -- I'm not going to explain the staff report, they
16 can work on that later. But when we did the 2003
17 IEPR we, I thought, and even before that, tried to
18 analyze the gas supply situation in the United
19 States.

20 And I think the state kind of made a
21 fairly open appeal to everyone in the gas business
22 that the projections showed that we needed more
23 gas. And we were looking for that gas. And I
24 think we even acknowledged that gas by pipe --
25 domestic gas would be good. We'd like to see

1 that.

2 But I think there was, you know, the
3 silence was deafening. And I think the state
4 turned to its concern about a supply of gas, and
5 started talking about the pipeline from the west,
6 which of course means LNG.

7 Now, I'm not quite sure why we still
8 don't talk about the fact that there's gas in the
9 Rocky Mountains.

10 But we've pretty well turned a lot of
11 our attention to LNG because those are the only
12 people talking to us. And talking about taking
13 the risks and the gambles of providing gas even
14 without necessarily long-term contracts.

15 In your letter you make a point we need
16 long-term electricity contracts to generate long-
17 term gas contracts. And maybe that's the dilemma.
18 And in this morning's hearing I think we talked
19 about our long-term concern here about the lack of
20 long-term electricity contracts.

21 But perhaps there's a "Catch 22" here
22 for you and for us. But that's my understanding
23 of why we are where we are right now. Now,
24 maybe -- and I did read this chapter and I didn't
25 catch that oversight, and I'll go back and re-read

1 it again. But, certainly it's legitimate to talk
2 about what domestic resources they are, even if
3 they're not coming our way.

4 But in all the dialogue we've had
5 everybody wants to send that gas east, not west.
6 And so I think we've found ourselves with a
7 dilemma.

8 PRESIDING MEMBER GEESMAN: Well, I think
9 also, if I understand the staff report correctly,
10 their reliance on the NARG model as informed by
11 data from both USGS and the Petroleum Resource
12 Council, they would say, I believe, fully accounts
13 for that Rocky Mountain gas.

14 And it flows, under the model, where it
15 can get the best price. I believe their
16 philosophy is that even if it flows eastward it's
17 availability has a beneficial effect on prices
18 paid in California.

19 So I think, given the methodology that
20 the staff utilizes, they would suggest that they
21 have fully recognized the value that we previously
22 placed on Rocky Mountain gas.

23 I don't want to speak too much for them.
24 It's their report, not mine.

25 MS. BROWN: Okay.

1 PRESIDING MEMBER GEESMAN: But I don't
2 believe that they would acknowledge any oversight
3 of that potential.

4 MS. BROWN: In the report it just didn't
5 seem to clearly identify that there was a need to
6 really focus on obtaining that gas. Now, just
7 because the pipeline is built in Wyoming,
8 California doesn't necessarily mean the gas will
9 come all the way to the end of the pipe. And
10 that's where we don't see it.

11 We've been very active with open
12 seasons. As you're aware, we've just completed a
13 \$1 billion expansion of our pipeline, which was
14 very successful. Our pipeline is full every day.
15 We held an open season this year trying to
16 encourage the utilities to step forward, knowing
17 that they were able to renegotiate their contracts
18 from the southwestern basins.

19 Unfortunately we were unable to get
20 anyone to show interest to sign up for long-term
21 transportation. Obviously there's a lot out on
22 the horizon to be resolved with LNG. And perhaps
23 the shorter term contracts the utilities entered
24 into will give them the time to try to decide the
25 best location to obtain their gas.

1 But, I guess it's our belief that if
2 they continue to contract for gas out of the
3 southwest basins that are in decline, and only
4 look to LNG for a portion of the gas that could
5 serve California, that's not a true diverse supply
6 of mixture portfolio the Commission has indicated
7 as one of your goals.

8 PRESIDING MEMBER GEESMAN: Yeah, and I
9 think that we have an abiding belief in the value
10 of that diversity. I do think, though, that
11 fundamental to the staff's methodology are various
12 judgments as to the cost of production and likely
13 price of gas flowing from various basins at
14 various sources.

15 If in reviewing their material, you're
16 able to point to where you think that their
17 assumptions have been flawed. That would be of
18 great value for Commissioner Boyd and I to know.

19 MS. BROWN: Okay. We'll do that. Thank
20 you.

21 PRESIDING MEMBER GEESMAN: Thanks very
22 much.

23 Jane Turnbull, League of Women Voters.

24 MS. TURNBULL: This is the last time
25 you'll see me for awhile. You'll probably --

1 (Laughter.)

2 MS. TURNBULL: -- be delighted. So,
3 Commissioners and Staff, I'm very pleased to be
4 here this afternoon to talk about the challenges
5 and possibilities of natural gas.

6 Yes, natural gas is a clean fuel. And
7 for many years it certainly was abundant. But
8 today all Americans face the very significant
9 costs associated with our over-dependence on this
10 vital resource.

11 As Californians, we largely depend on
12 imports from out of state. And we are, and should
13 be, very concerned both about how we will keep the
14 pipelines filled, and about the rapidly increasing
15 cost of the gas.

16 This week PG&E announced that the price
17 of its gas would increase 71 percent. This will
18 have major implications on our whole economy
19 inasmuch as each 50-cent-per-million-Btu-increase
20 will displace \$1 billion from other sectors of the
21 economy.

22 It's unfortunate that the IOUs have not
23 been able to hedge their financial vulnerability
24 because they've been prohibited from developing
25 long-term contracts for gas. This is a policy

1 that should be revisited.

2 In any case, the League concurs with the
3 report's conclusion that the first priority for
4 natural gas policy should be more efficient use.
5 And we have four specific recommendations.

6 First, aging inefficient power plants
7 represent a challenge that we can no longer afford
8 to address with RMR contracts. The owners of
9 these plants should face a penalty tied to the
10 efficiency, or rather the inefficiency of their
11 facilities.

12 Two, combined heat and power
13 opportunities should be actively encouraged. And
14 constraints on their development should be
15 removed.

16 Three, the new title 24 building
17 standards are excellent and will reduce energy use
18 in new buildings. But there remain 13 million
19 buildings in this state that do not meet the same
20 level of energy efficiency, and will not. The
21 potential for reducing the demand for natural gas,
22 as well as for electricity, in existing
23 residential and commercial buildings is great.
24 But building owners and contracts need both good
25 information about payback periods and incentives

1 before they are likely to contract for retrofits.

2 We'd like to see them get that information.

3 PRESIDING MEMBER GEESMAN: Let me
4 interrupt you there, Jane, to indicate that that
5 has been an ongoing concern of the Commission. As
6 you mentioned, the Commission is supposed to be
7 preparing a report to the Legislature pursuant to
8 AB-549 passed several years ago now. Our
9 Efficiency Committee has not been satisfied with
10 the quality of at least the initial drafts of that
11 report, and has sent it back for more work.

12 So we are now behind what I believe was
13 a September 30th deadline. And it's a matter of
14 considerable importance. So I'd encourage you to
15 keep a careful eye on it when it does come back in
16 front of the full Commission. We have been, I
17 think, deficient in addressing the retrofit
18 opportunities in the existing building stock.

19 The PUC has tried to address that in the
20 utility-administered programs, but the Legislature
21 expects us to be quite a bit more prescriptive in
22 our AB-549 report. That will be in front of us, I
23 think, at some point this fall.

24 MS. TURNBULL: Okay. I have gotten very
25 good information from your staff in terms of the

1 justification for the new title 24 standards and
2 for the appliance standards. And, you know, the
3 justification is there. It's really, it's good
4 stuff.

5 PRESIDING MEMBER GEESMAN: We're good on
6 new stuff. We're a little bit less than that on
7 the existing building stock.

8 MS. TURNBULL: Um-hum. Well, my fourth
9 point is that the additional \$20 million that the
10 CPUC has authorized for natural gas efficiency
11 programs is not nearly enough.

12 The time has probably come for a gas
13 utility effort to develop a counterpart to the
14 electric concept of negawatts, and these would be
15 negatherms. The League does not have an explicit
16 position on importing liquified natural gas.
17 However, we can concur with the staff's position
18 that any LNG development be consistent with the
19 state's energy policy of balancing environmental
20 protection, public safety and local community
21 concerns to insure protection of the state's
22 population and coastal environment. And I think
23 so long as that is done we would be supportive of
24 LNG efforts.

25 Thank you for the opportunity to be here

1 one more time.

2 PRESIDING MEMBER GEESMAN: Thank you
3 very much. Audrey Chang, NRDC.

4 MS. CHANG: Good afternoon,
5 Commissioners and Staff. Audrey Chang from
6 Natural Resources Defense Council.

7 My comments will focus on energy
8 efficiency in the natural gas sector, and build a
9 little bit on Jane's comments.

10 Overall we commend the CEC for the
11 sections addressing natural gas efficiency in
12 chapter 7, particularly on pages 111 to 112, and
13 also some other sections, as well.

14 We also commend staff for analyzing the
15 high energy efficiency programs, and I'd also like
16 to make parallel comment to what I mentioned this
17 morning about the demand forecast for natural gas,
18 in that we recommend that the CEC be clear about
19 how energy efficiency is accounted for in the
20 demand forecast. In particular, future codes and
21 standards, and also the energy efficiency
22 programs.

23 There are two other points I'd like to
24 make. First, which is a small suggestion for
25 modification of the text within the current draft

1 IEPR, is that we recommend that the figures that
2 reflect the IOU energy efficiency 2006-2008 plans
3 that were recently approved by the PUC, that those
4 numbers are reflected in the report.

5 Currently the report says that there's
6 \$20 million in investments for 2005. And I'll
7 just note that over the next three years the PUC's
8 approved \$300 million for natural gas efficiency
9 programs. So I think that's important to note.

10 My last point is that we'd like to also
11 emphasize that there are more cost effective
12 savings beyond those included in the PUC's gas
13 saving targets, which I believe represent only
14 about 40 percent of the achievable potential.

15 We urge the CEC to recommend that the
16 IOU natural gas programs ramp up as fast as
17 possible beyond the PUC targets. And also that
18 the CEC urge the PUC to increase the targets
19 beyond the current levels during their next goal
20 revision.

21 And it's also worth noting that the cost
22 effective potential for natural gas efficiency
23 measures is likely much higher now due to
24 significantly higher wholesale prices for natural
25 gas. And as we know, efficiency is the fastest

1 and cheapest way to help lower customer bills.

2 Thank you very much.

3 PRESIDING MEMBER GEESMAN: You have a
4 view on the staff forecast presented today?

5 MS. CHANG: I have not been able to look
6 at that in detail with the revisions.

7 PRESIDING MEMBER GEESMAN: If you have
8 an opportunity to before you submit your written
9 comments, it would be appreciated.

10 MS. CHANG: Sure.

11 PRESIDING MEMBER GEESMAN: Les Guliasi,
12 PG&E.

13 MR. GULIASI: Good afternoon. Les
14 Guliasi from PG&E. Before I make my remarks about
15 the natural gas issue, I wanted just to spend a
16 moment congratulating you on the fine work you've
17 done over the past year or so. I didn't really
18 have a chance yesterday, in the interests of time.
19 And with the gravity of the issues I tried to
20 address yesterday, and certainly notwithstanding
21 the concerns that we expressed about some part of
22 the report. You and the staff need to be
23 commended for the fine work you've done.

24 While we didn't participate in every 50-
25 plus workshops or hearings you conducted, we did

1 participate in a great number of them. And we
2 believe that we've been a constructive contributor
3 to the overall process.

4 And I was thinking about this and
5 thinking about something Commissioner Boyd from
6 time to time reminds us of. That is that there
7 are three legs that support the energy stool,
8 electricity, natural gas and transportation fuels.

9 And I was thinking about this. With
10 high gasoline prices, rising natural gas prices,
11 and resulting higher electricity prices,
12 Commissioner Boyd, it appears that those three
13 legs are a little bit wobbly right now.

14 But I think if you step back and look at
15 it from a longer term perspective, again
16 notwithstanding all of the many issues that you've
17 addressed and the concerns you have about the need
18 to build greater infrastructure, long-term
19 contracts, greater supply, better job on energy
20 efficiency, demand response and the whole litany
21 of things that you discuss, I think the platform
22 on which those three legs stand is still solid.

23 And I just want to urge you to continue
24 putting the spotlight on the important issues that
25 we need to address. So, thanks for the fine work.

1 I just want to address a single issue
2 and that has to do with the staff's natural gas
3 price forecast. The demand forecast we think is
4 fine, but we have a concern about the staff's
5 natural gas price forecast.

6 We believe that the forecast of natural
7 gas prices in California, the price forecast is
8 too high. We use many of the same tools that the
9 staff uses, the same model, the same data inputs
10 and so forth. And when we've done our analysis we
11 just think that the price is too high.

12 If you look at the staff's forecast at
13 Henry Hub for the period from five years to 15
14 years outward from now, we see that the staff's
15 forecast is basically in the same range as other
16 forecasts you see. But the price differential
17 between Henry Hub and California prices greatly
18 exceeds those other forecasts and what we've seen
19 historically.

20 When we've done our analysis we've been
21 able to identify, we believe, the cause of the
22 staff forecast being too high. And we think that
23 it results from several, if you want to call it,
24 technical or modeling assumptions or errors. And
25 we can go into some of that detail if you'd like.

1 Maybe some --

2 PRESIDING MEMBER GEESMAN: We would.

3 MR. GULIASI: -- of the time might be
4 best spent with the staff. I can just mention a
5 few of them.

6 I have with me one of our gas experts
7 who actually has quite a bit of experience with
8 the model if we want to explore this even deeper.

9 But just to list a couple of these
10 issues in modeling. One thing we've seen is that
11 what the staff does is they assign certain gas
12 pipeline charges, you know, too many times. For
13 example, if you look at the rate between Topock
14 and Citygate, they assessed pipeline charges
15 twice.

16 Similarly, when the staff looks at the
17 rates between El Paso, the Permian Basin and the
18 Topock area, they're assigning certain costs three
19 times. So that's just, you know, one set of I
20 guess modeling mistakes, if you want to call them
21 that.

22 Just to mention a couple of others. We
23 found in some instances the staff excludes certain
24 pipelines that are actually in existence.
25 There's the Opal pipeline in western Wyoming, the

1 Stanfield pipeline in eastern Oregon are not even
2 included in the staff's modeling efforts.

3 And similarly, the staff includes
4 pipelines that currently don't exist, for example,
5 there's the British Columbia to Reno lateral line.

6 And then finally, the staff model
7 predicts certain bottlenecks, or at least the
8 model, itself, predicts certain bottlenecks. But
9 in contrast, the staff finds that there's adequate
10 pipeline capacity. There seems to be an
11 inconsistency there in the assumptions they make
12 and then the results that the model yields.

13 So those are just some of the mistakes
14 that we've been able to highlight that we think
15 account for the overall gas forecast in outward
16 years being too high.

17 PRESIDING MEMBER GEESMAN: Now, let me
18 ask you, Les, what's the best way for us to
19 address those differences. Do you have the
20 ability, in fairly short order, to provide a
21 written critique. Would it be most productive to
22 have your experts sit down with the staff and work
23 through where those differences lie?

24 MR. GULIASI: I think there's a couple
25 things we can do. Certainly we're willing and

1 able to sit down and talk about some of those
2 differences. We're prepared to do that.

3 Secondly, we will outline, and I think
4 in greater detail, some of the concerns we have
5 when we file our written comments in a week.

6 But I think over the course of the next
7 week, rather than wait for comments to come in and
8 for you to digest them, we can certainly offer to
9 participate in collaboration with the staff.

10 PRESIDING MEMBER GEESMAN: I think that
11 would be helpful. To the extent that you're not
12 able to resolve your differences, I would like to
13 see them noted in your written filing on the 14th,
14 so that Commissioner Boyd and I have an
15 opportunity to consider them, and perhaps ask the
16 staff for a written response, as well, before
17 submitting the final report.

18 MR. GULIASI: And I think there's one
19 thing that you can do that, you know, in the
20 interests of time, and perhaps, you know, time
21 will not permit say a full run of the model, you
22 know, to produce what we think would be a more
23 accurate forecast, what you could do, and I think
24 this would suffice, would be simply to use the
25 staff's forecast for the Henry Hub as a proxy for

1 the gas prices at the California border.

2 Thank you very much for the opportunity.

3 PRESIDING MEMBER GEESMAN: Thank you.

4 Joe Sparano from WSPA.

5 MR. SPARANO: Good afternoon,
6 Commissioners Geesman, Boyd, Advisor Smith and
7 Advisor Jones. For the record, my name is Joe
8 Sparano; I'm President of the Western States
9 Petroleum Association, or WSPA. WSPA is a
10 nonprofit trade organization representing 26
11 companies that explore for, produce, refine,
12 transport and market petroleum and petroleum
13 products and natural gas in California and five
14 other western states.

15 I find myself today talking about a
16 subject I'm not as familiar with as the one I'm
17 usually here talking about, which is the
18 downstream segment. But I did think it was
19 worthwhile, given that a number of our members are
20 producers of a considerable amount of natural gas
21 and have a keen interest in how the IEPR deals
22 with natural gas use, demand.

23 So I've guessed I have about eight
24 minutes, 32.6 seconds of testimony. So I hope
25 you'll bear with me for that.

1 WSPA's over-arching theme and
2 recommendation still is continue using all of the
3 clean-burning petroleum and natural gas fuels
4 currently produced, and augment that clean supply
5 using alternative and renewable fuels,
6 conservation measures and improved efficiency.

7 We all know that the development of new
8 energy supplies is not keeping pace with the
9 state's increasing demand. Natural gas is key for
10 our state's overall economic growth and health.
11 As a source of supply for a variety of stationary
12 sources, most importantly, power generation, it
13 has been a significant element helping to improve
14 the state's air quality over recent years.

15 However, California imports 87 percent
16 of its natural gas supplies, which are threatened
17 by declining production in many U.S. supply
18 basins. Instate production currently satisfies
19 about 13 percent of statewide demand. This 13
20 percent is still an important component of
21 California's supply. And WSPA companies believe
22 the state should continue to support its domestic
23 supply sources.

24 We agree with the 2005 IEPR statement
25 that California will continue to depend upon

1 petroleum fuels and natural gas to meet its energy
2 needs. However, in the same section of the IEPR
3 there are statements saying the most effective way
4 to reduce energy costs and bolster California's
5 economy is by reducing the demand for energy from
6 these sources. This seems contrary to the IEPR
7 statement.

8 WSPA's testimony on the IEPR
9 transportation fuel section expressed our belief
10 that continuing the use of all clean-burning
11 existing fuels, while integrating new alternative
12 fuels into California's fuel supply portfolio,
13 will take us to future energy supply success.

14 We continue to believe that it is more
15 appropriate to call for a reduction in the rate of
16 growth of demand for these petroleum and petroleum
17 products, rather than reducing the demand for and
18 use of the cleanest burning fuels in the global
19 marketplace.

20 WSPA supports efficiency programs. We
21 are encouraged to see that the draft 2005 IEPR
22 indicates excellent progress has been made in this
23 area. We support the report's suggestion of an
24 increased role for combined heat and power
25 facilities. As you know, our companies have been

1 investing in and using cogeneration technology for
2 years.

3 The executive summary of the IEPR also
4 refers to the 2003 Energy Report and the 2004
5 Energy Report update recommendations for
6 strategies to reduce energy demand, secure
7 additional supplies, transition to more
8 sustainable technologies and fuels and build
9 infrastructure.

10 It makes the following observation,
11 quote: Unfortunately the state has made only
12 minimal progress in implementing many of these
13 recommendations, and California's economic
14 prospects are suffering as a result. The state
15 must increase its efforts and take immediate
16 action to address problems in the energy sector to
17 meet the state's policy goal of insuring adequate,
18 affordable and reliable energy."

19 If WSPA could provide the Commission
20 with actions that would implement it, would help
21 you meet the state's policy goal by increasing gas
22 supplies within the state, without any
23 environmental backsliding, would you be interested
24 in partnering with us to do that?

25 These actions would fall into the issue

1 areas of gas being shut out of the system for
2 various reasons; permitting and access situations
3 that impact expansion of gas supplies; and
4 technological advancements.

5 One of those issues relates to gas
6 quality. We cannot afford to adopt gas quality
7 standards that limit pipeline access of gas
8 produced in California, in association with crude
9 oil production, because that gas may contain
10 relatively high levels of ethane or gross heating
11 values greater than 1100 Btu.

12 The California Air Resources Board has
13 proposed a motor vehicle CNG fuel specification of
14 statewide methane number 80, and regional MN-73
15 for the San Joaquin Valley and South Central
16 Coast, and a to-be-determined WOBBE number.
17 SoCalGas and PG&E have recommended to the Public
18 Utilities Commission, to the Energy Commission
19 that any CPUC natural gas standard change reflect
20 a maximum WOBBE number of 1400, a high heating
21 value limit of 1150 Btu, and no linking of CARB
22 motor vehicle specification with the CPU standard,
23 which is rules 21 and 30.

24 We agree with SoCalGas and PG&E, which
25 is an indication of how well the partnership

1 between us is developing on the issue of gas
2 quality. New issues for producers are SoCalGas'
3 proposed change of the CO2 specification from 3
4 percent to 2 percent; and oxygen limit of 2000 ppm
5 to 1000 ppm. We are continuing to work with
6 SoCalGas on these issues.

7 If these two recently proposed changes
8 in gas specifications were imposed on producers in
9 southern California, approximately 21 percent of
10 the existing producers gas connections to SoCal's
11 system would be affected. And more than 50
12 percent of the volume of producer gas would be
13 impacted.

14 The South Coast Air Quality Management
15 District remains a primary opponent of revision of
16 existing CARB CNG specifications asserting air
17 quality concerns. It is our hope that testing
18 that is being performed through participation of
19 all the stakeholders, including the SCAQMD, will
20 alleviate those air quality concerns. And that
21 the issue will be resolved by the first quarter of
22 2006.

23 This will hopefully allow the 1992 CARB
24 CNG motor vehicle fuel specification to finally be
25 revised and brought in line with current

1 technology.

2 We have been working closely over the
3 past five months with SoCalGas and PG&E in
4 leadership roles to develop utility specifications
5 through the gas quality stakeholders technical
6 committee and policy committee. The CEC, CARB,
7 California Department of Oil, Gas and Geothermal
8 Resources, Air Districts and others are very
9 active members of this group.

10 The objective of their effort is to
11 refine the CPUC natural gas quality standards with
12 emphasis on the need for additional emission and
13 performance testing, and on obtaining test data to
14 project the impact of the potential gas system
15 heating value and WOBBE number changes.

16 We have put our money on the table,
17 along with SoCalGas, PG&E, Shell, Occidental of
18 Elk Hills, the California Independent Producers
19 Association and others, totaling some \$150,000, to
20 initiate a study by the independent research and
21 testing organization, Gas Technology Institute, or
22 GTI.

23 This study will catalogue existing
24 natural gas interchangeability test data, and
25 establish testing protocols for additional field

1 testing.

2 We are also continuing to work with CARB
3 to address emission-related concerns that are
4 related to use of WOBBE number; and address CARB's
5 belief that additional studies are needed prior to
6 action by its board to adopt a new CNG standard.

7 CARB Staff has indicated that a board
8 meeting would be scheduled in March of 2006. And
9 that there is a need to finalize the staff
10 proposal for the new CNG motor vehicle fuel
11 standard by December of 2005.

12 It is our hope and belief that this
13 effort will address the remaining air quality-
14 related concerns. These other concerns deal with
15 additional testing of stationary sources that
16 utilize natural gas that might be impacted by a
17 change in natural gas quality specifications, as
18 well as additional work on legacy fleets in the
19 regions with a reduced MN number of 73.

20 WSPA supports the Energy Commission's
21 PIER NG program. The program has funds available
22 that will be used to enhance our understanding of
23 the possible impacts of and resolution for gas
24 quality issues, and to determine the effects of
25 variable natural gas quality on end users.

1 In regard to storage of natural gas as a
2 way to insure adequate supplies and protect
3 prices, as the IEPR suggests, it should be noted
4 that there is cost for storage. And this is
5 something that should not be assessed against
6 producers.

7 The benefit is to all end users, so the
8 cost for storage should be funded by end users or
9 the utility providers. I'm not familiar enough
10 with the utility reports to know how many days of
11 storage are presently provided. Or how many days
12 the CEC proposes.

13 But in order to provide price stability
14 protection, our industry suspects it might be as
15 much as two to four weeks or longer. I think a
16 cost/benefit analysis of such a proposal should be
17 completed before finalizing a policy position on
18 this issue.

19 Storage for covering major supply
20 pipeline interruptions, on the other hand, might
21 be five to seven days. Any new LNG terminals are
22 likely to provide one to three days or so of
23 storage. And many of these terminals are designed
24 for 1 bcf per day rates.

25 This additional storage will enhance

1 California's stability of short-term supply. And
2 is an added benefit of the LNG terminal projects.

3 WSPA has stated previously during the
4 2003 and 2004 IEPR hearings, that an important
5 addition to natural gas infrastructure in North
6 America is the construction of LNG import
7 facilities. California clearly needs to diversify
8 its natural gas supply sources and seek additional
9 natural gas supplies from cost-competitive and
10 reliable sources such as LNG.

11 We continue to support the IEPR
12 recommendations that LNG import facilities be
13 located on the west coast. And since when it is
14 heated back into its gaseous state, LNG becomes
15 natural gas again, it seems contradictory to call
16 for reducing the use of California and North
17 American natural gas while endorsing the
18 importation of LNG. Why not increase the
19 availability and use of both resources while we
20 bring new alternative and renewable fuel supplies
21 to the commercial marketplace. That seems like
22 the most efficient and least wasteful way to help
23 solve California's growing energy supply
24 challenge.

25 And since this is the last of the almost

1 60 IEPR hearings before the final adoption
2 hearing, I could not resist ending by reminding
3 you of our favorite phrase, it's petroleum plus.

4 (Laughter.)

5 MR. SPARANO: Those are my comments on
6 behalf of the industry today. I would be happy to
7 answer any questions.

8 PRESIDING MEMBER GEESMAN: Well, I
9 certainly commend you for the number of times you
10 were able to work petroleum into testimony on a
11 natural gas chapter.

12 (Laughter.)

13 MR. SPARANO: I probably would have
14 gotten more, but I only had about eight hours
15 overnight to do this, so I was limited by my own
16 capabilities or not.

17 PRESIDING MEMBER GEESMAN: Regarding the
18 gas quality topic, as you'll remember we did spend
19 two lengthy days in San Francisco in hearings on
20 that topic.

21 We have tried to keep in touch with the
22 subject through our staff since then. My own
23 feeling is that collaborative process is running
24 about six or eight months longer or slower than we
25 had anticipated in February that it should.

1 But the continue reports that we've
2 gotten back is that things are going well and it
3 doesn't require any further intervention on
4 Commissioner Boyd's and my part.

5 On the other hand, I think that it's
6 probably a subject that does merit some continuing
7 oversight by our Natural Gas Committee between now
8 and March. And if there's something constructive
9 that we can do between now and then, I, for one,
10 believe that we ought to consider that.

11 Now, our IEPR Committee will become a
12 pumpkin here in another month or so. But
13 Commissioner Boyd's Natural Gas Committee remains
14 intact. And I would be happy to go to any
15 hearings on natural gas quality that he might
16 choose to convene.

17 MR. SPARANO: Commissioner Geesman, the
18 fact of the matter is that collaboration has been
19 going on for five or six years, I believe, long
20 before --

21 PRESIDING MEMBER GEESMAN: I think
22 that --

23 MR. SPARANO: -- I got here.

24 PRESIDING MEMBER GEESMAN: -- that was a
25 point Commissioner Boyd insisted that we make in

1 the 2003 IEPR.

2 MR. SPARANO: Yeah, and I think it's a
3 very valid point. And this is a challenging
4 situation for commercial operations, operators to
5 come to some conclusion that they both feel,
6 producers and utilities feel, that they can leave
7 the table in a way where they can support the
8 result, whether they like every feature of it or
9 not.

10 And we really are trying to get there.
11 It's just been a challenge, and progress is being
12 made. I see all of the transmittals and constant
13 production of information that tries to get the
14 two parties closer. But we'll still work at it,
15 and I will certainly take back your suggestion and
16 willingness to be part of that process.

17 ASSOCIATE MEMBER BOYD: Well, I
18 appreciate the role your organization has played
19 in that gas quality issue. I'd hate to really
20 tell you how long it's been. It way predates my
21 arrival here. And my fear now is it won't be done
22 when I leave at the end of my term.

23 But, since I will shortly be a pumpkin
24 and won't have to sit through 60-some-odd
25 hearings, perhaps we can turn the heat up a little

1 bit under this subject and get it done before my
2 term does end in another year and a few months.

3 So, well, because we tried to all keep a
4 happy face with regard to all the players in the
5 room, I'll stop there, but --

6 (Laughter.)

7 ASSOCIATE MEMBER BOYD: -- my patience
8 has been thin for so long. And this is not
9 directed at you, frankly. I think this has been
10 protracted way too long, and unfortunately it got
11 caught up in the LNG issue, which is protracting
12 it even longer.

13 So, hopefully we'll get it done and I
14 will remember Commissioner Geesman's volunteering
15 to participate in future efforts, so, thanks.

16 MR. SPARANO: I wrote it down and it's
17 unusual --

18 ASSOCIATE MEMBER BOYD: And I know
19 you'll remember it.

20 MR. SPARANO: -- it's unusual that your
21 comment is not directed at me, so in response, I
22 would like to say, with all sincerity, that I
23 really commend the two of you. I know you've put
24 in endless and maybe even thankless hours working
25 on this, sitting and listening to testimony.

1 And on behalf of our industry and
2 personally I want to thank you for the hard work
3 that you've done. I know the staff has done a lot
4 of the legwork, but the two of you have made it a
5 point to try and make this become a living
6 document and something that helps the state. And
7 I appreciate it.

8 PRESIDING MEMBER GEESMAN: Thanks, Joe.
9 Mike Eaves, California Natural Gas Vehicle
10 Coalition.

11 MR. EAVES: Thank you, Commissioners.
12 My name is Mike Eaves of the California NGV
13 Coalition.

14 And on the previous exchange, on the gas
15 quality issue, I've been engaged in that argument
16 from Southern California Gas Company's perspective
17 for 12 years. And still engaged in it.

18 But one of the things that I wanted to
19 comment on on chapter 7 on the forecast is in
20 regard to the natural gas price forecast. That
21 price forecast is really critical. I'd like to
22 piggyback off of PG&E's testimony and say that we
23 think that the projections of future gas prices in
24 the IEPR are higher than what they should be.

25 And the reason that it's critical is

1 because it is not just looking at that natural gas
2 price that is important, but the relationship to
3 that price versus all of the other energy prices
4 in the market.

5 And we made some testimony last week for
6 chapter 2 on the transportation section indicating
7 that the staff's projection of natural gas was
8 causing a difference of about \$4 billion in net
9 benefits that natural gas could have in the
10 transportation sector, versus using the staff's
11 projections.

12 So I think it's important to try to get
13 that future projection right. And we encourage
14 PG&E, who obviously has the expertise and
15 everything, maybe along with Semptra Energy and
16 everything, to try to look at those issues and
17 work with staff and try to come up with maybe a
18 better forecast, price forecast, than what we've
19 got now.

20 So, i like the other recommendations. I
21 like the impact of the support for the need for
22 LNG imports, and we think that that's absolutely
23 critical. But we do urge you to continue to work
24 to resolve that price forecast for natural gas,
25 because it's critical in other venues within the

1 IEPR.

2 Thank you.

3 PRESIDING MEMBER GEESMAN: Thank you,
4 Mike. And just to preempt anybody that's going to
5 get up to counter his remarks, I know that there
6 are those who will consider the staff price
7 forecast to be too low. And I think what our
8 interest is in trying to determine
9 methodologically if there are any obvious flaws or
10 errors, --

11 MR. EAVES: Right.

12 PRESIDING MEMBER GEESMAN: -- and how
13 best it can be utilized in other proceedings. The
14 PUC looks to it to inform much of their
15 procurement activity. The renewable portfolio
16 standard is driven by input from our gas staff.
17 So we do have a strong interest in seeing that
18 methodologically it's as bulletproof as it can be.

19 The scenario where no one has had a
20 particularly good crystal ball the last several
21 years, and --

22 MR. EAVES: No, and I'm even one more
23 step removed from that, from the people that are
24 knowledgeable about that. So we just encourage
25 you to keep working on that.

1 PRESIDING MEMBER GEESMAN: Yeah. And we
2 are committed to doing that.

3 MR. EAVES: Thank you.

4 ASSOCIATE MEMBER BOYD: We certainly
5 agree that it's higher than it should be, but I'm
6 not sure we can do anything about that. But, --

7 MR. EAVES: Okay.

8 ASSOCIATE MEMBER BOYD: -- I certainly
9 agree with what Commissioner Geesman said, that
10 nobody, no experts have gotten it right for quite
11 awhile now. And we're all struggling to get in
12 the ballpark at least.

13 PRESIDING MEMBER GEESMAN: Sean Edgar,
14 California Refuse Removal Council.

15 MR. EDGAR: Good afternoon,
16 Commissioners. Sean Edgar on behalf of the
17 California Refuse Removal Council, back to talk to
18 you about trash trucks -- I'm just kidding.

19 (Laughter.)

20 MR. EDGAR: I also confess that my
21 crystal ball is very dim this afternoon, it being
22 a Friday afternoon. I'm also here to make a
23 public confession that I guess I have little-man
24 syndrome with regard to the topic at hand, because
25 your staff projection is that transportation fuel

1 use currently is about 1 percent of natural gas.

2 So, I thought that maybe I'd just step on out of
3 the room. But then I realized that depending on
4 which regulator or court system, depending on who
5 it is, it could be maybe 100 percent of all of our
6 trash trucks tomorrow. So I realized that I
7 should probably stay in the room and offer a few
8 comments.

9 First of all, I'd just like to punctuate
10 a few key issues. We'll be making our more formal
11 and extensive written testimony. However, just to
12 indicate, as Mr. Eaves pointed out, there are some
13 substantial linkages between this chapter on
14 natural gas supply and chapter 2 that I spoke to
15 you last week on relating to the transportation
16 fuel end.

17 And I'd just like to hit on a few of
18 those issues because although refuse trucks are
19 few in number, comprising less than 1 percent of
20 the statewide fleet, and consuming less than 1
21 percent of the natural gas, it's a big deal for
22 our folks who have multiples of thousands of
23 trucks out servicing six million California
24 customers every week with recycling and sanitation
25 services.

1 That being said, I'll just remind you
2 the fleet composition that we have is about 10
3 percent of the statewide fleet are natural gas
4 garbage trucks. In the South Coast AQMD that
5 percentage is about 25 percent within that Air
6 District.

7 The issues today are inextricably linked
8 to last week's chapter, specifically on how much
9 of a future impact natural gas will make on
10 diversity. And I heard the term long-term earlier
11 from you, Commissioner Boyd, and I assure you that
12 our folks are long-term interested to fulfill the
13 contracts that we have and the obligation to the
14 public. And the crystal ball being fuzzy, I'm
15 interested to try and facilitate a longer term
16 solution as we can, understanding we have a couple
17 unanswered questions that I'd like to address.

18 First off, just a few points on
19 quantity. And then I'll speak toward quality.

20 On the quantity side it turns out that
21 the refuse business and recycling business has a
22 very unique bond with you all because I think I
23 pointed out last time I spoke, that the public who
24 wants access to recycling service and cost
25 effective recycling service and sanitation

1 service, also is loathe sometimes to have
2 recycling facilities located near them. And I
3 think a very similar approach with regard to the
4 folks who want real cost effective sources of
5 future energy which will rely upon imports.

6 And the challenge of siting those is
7 nothing I need to go into tremendous detail, you
8 all know those challenges, other than to say from
9 our perspective we went through a regional
10 shortage of LNG just this past August in the Los
11 Angeles basin. The Air District and other folks
12 made some super-human efforts to try to
13 reestablish that supply. The fact of the matter
14 is it resulted in garbage trucks being grounded.
15 It's a little bit embarrassing to your customer to
16 have a \$250,000 piece of equipment grounded
17 because you don't have supply to fuel that truck.

18 So we're encouraged that folks are
19 working toward increasing the reliability of
20 supply. For us, our customers tend to notice when
21 their garbage or recycling bin doesn't get picked
22 up. So supply is a critical issue to us that I'm
23 sure you'll be looking into very heavily as you
24 get into the final report.

25 But I'll leave that point just by saying

1 that obviously prices is a key function of the
2 quantity. And that forecast, where we heard the
3 number earlier of 71 percent increased costs for
4 CNG, right now our family-owned businesses are
5 struggling to keep the CPI adjustments that we get
6 in our contracts with the cities and counties that
7 we serve throughout California. So I'm sure your
8 staff will contemplate that on the economic
9 analysis moving forward.

10 Briefly, to touch on the quality issue,
11 I have a little bit of sticker shock perhaps
12 because I heard Mr. Sparano talk about potentially
13 over this methane number, 50 percent of the supply
14 could be affected in the South Coast area. And
15 that would be of concern. I've heard Mr. Eaves in
16 prior testimony tell this Board the upfit cost,
17 depending on one way, which way it goes, MN-80,
18 there may be no upfit cost. At MN-73 there may be
19 an upfit cost. And I've heard the number, Mr.
20 Eaves, I believe, offered \$100 million as the
21 potential upfit cost for the natural gas trucks
22 that are on the road today.

23 That's not the new, hopefully the new
24 generation trucks wouldn't require modification.
25 So the specification of fuel is very critical to

1 us. We're hopeful that you get to a conclusion
2 soon. However, we don't, today, see that there's
3 a clear path on fuel quality.

4 And page 117 in the report talks about
5 mid-next year. I hope the timeline stays. I hope
6 it happens sooner than that.

7 Just to wrap up. Table 1 where you're
8 tying all these estimates together, there remains,
9 unless it's been corrected by your staff, the
10 scenario that contemplates aggressive -- what
11 you're calling the aggressive case scenario for
12 natural gas penetration into the heavy duty fleets
13 at 75 percent.

14 Apparently the -- we've spoken about
15 your staff's natural gas forecast, however that
16 scenario is apparently relying on a vendor quote.
17 That's what Mr. Pickens thinks he's going to be
18 selling fuel here in California. And that is what
19 my folks, we've analyzed that. We're calling that
20 the-more-you-buy-the-more-you-save scenario
21 because what we're seeing is that if we know it's
22 costing more than 10 percent, and in a lot of the
23 communities that we serve we're able to make that
24 happen. But if it just costs substantially more
25 in the 10 percent of the trucks out there on the

1 road today, and if you're looking at 10 percent
2 penetration in the total fleet in California at a
3 cost potentially of \$2 billion, we just don't see
4 the math where you save \$2 billion by buying more
5 and getting the 75 percent.

6 So we're hopeful that your staff will
7 work assiduously and aggressively to correct that
8 as part of us getting to the best number that you
9 can.

10 Thank you again for the opportunity to
11 speak to you. You'll see our more formal
12 comments; and happy to address any questions you
13 may have at this time.

14 PRESIDING MEMBER GEESMAN: Thank you,
15 Mr. Edgar.

16 MR. EDGAR: Thank you.

17 PRESIDING MEMBER GEESMAN: Rich Ferguson
18 from CEERT.

19 DR. FERGUSON: Good afternoon,
20 Commissioners. I'm going to comment today on
21 chapter 7. The Organization will file our
22 comments next week on several other chapters, and
23 this one, too.

24 Mostly what I would like to show today
25 is some statistics that lead me to a very

1 different conclusion than what's in chapter 7
2 right now.

3 You'll notice that I've titled this
4 North American natural gas crisis. That word
5 crisis was chosen carefully and has nothing to do
6 with the hurricanes. We have been in deep do-do
7 for a long time, and the hurricanes made that very
8 clear, bumped the price up another \$3.

9 But, you know, my main reaction in
10 reading chapter 7 was that it's kind of a ho-hum,
11 here's another exercise we need to go through.
12 And I think we need, the people of California need
13 and deserve better than that.

14 First of all, it would be useful for
15 chapter 7 to include some description of how we
16 got in the mess that we got in. And that's the
17 kind of data that I hope to share today.

18 And the other thing is I think there
19 needs to be recommendations in chapter 7 for some
20 fairly, Jairam called them heroic efforts to
21 address this crisis.

22 I don't know which is up and down here,
23 but we'll give these buttons a try. So, as I
24 said, my reaction to the draft is that it failed
25 to communicate an urgent need for action. And

1 these are just some, you know, highlights.

2 The NYMEX gas prices have increased more
3 than 500 percent in the last six years.

4 California's annual bill is about \$20 billion at a
5 price of \$10, which was, by the way, the price
6 before Katrina. I think this corresponds to
7 Jane's comment that 50 cents corresponds to a
8 million bucks.

9 But the other thing which is surprising
10 is that despite the high prices, prices paid to
11 producers, U.S. gas production has not increased.
12 And of course, the hurricanes have taken a big
13 hit. Already we've lost about a quarter trillion
14 bcf due to the two hurricanes.

15 My professional opinion is that U.S.
16 production will not increase in the foreseeable
17 future. And especially if LNG comes in and
18 reduces current wellhead prices.

19 With all due respect to the people who
20 worry about supply disruptions, my view is that
21 that's not the largest threat. The largest threat
22 is this \$20 billion a year hit that we're taking
23 with no assurance that the price isn't going to go
24 to \$20, or even \$30.

25 I had to sit in the back of the room,

1 people were talking about nobody had a crystal
2 ball. But, I publish a article every week that
3 some of you may actually read. And if you'll
4 remember, we were talking about the possibility of
5 \$10 gas way back in May and June. So, you know,
6 this is a long time coming.

7 This, I think, is the summary graph that
8 tells it all. And I've even chopped the bottom
9 axis off at 10 trillion cubic feet just so you can
10 get a better picture of how the annual numbers are
11 changing.

12 By the way, this is all EIA data. And
13 all of my 2005 numbers are for 12 months ending
14 end of July, which is the latest EIA data.

15 So as you can see, over the last eight
16 years, prices paid to producers have increased
17 markedly. And, of course, that 2005 number is low
18 compared to the price today, because it's an
19 average of the last 12 months. But, production,
20 U.S. production has just not responded to this
21 price.

22 I don't know what your estimates of
23 marginal cost of production of gas is. Mine run
24 from about \$3.50 to \$4 a million Btu for shale and
25 coal-bed methane and tight sands and things like

1 that. And that price this year is pushing three
2 times the marginal cost of production. The one we
3 got there, it's about double that.

4 So, you know, what this tells us is that
5 the market -- an economist would say this is a
6 classic market failure. There are enormous
7 scarcity rents being paid far above the marginal
8 cost of production. And the equilibrium models
9 like NARG just don't work. And I think Jairam
10 referred to that when he said, you know, there's
11 no way. How do you project what the scarcity
12 price is going to be in the future. It's
13 extraordinarily difficult.

14 You can draw a supply curve and you can
15 say, okay, if the supply curve is right we know
16 about what the marginal cost of production is.
17 But you have no way of knowing how much we're
18 going to have to pay to producers.

19 But to me that's the fundamental
20 problem. Even though the price that we're paying
21 producers for this stuff has increased, you know,
22 at least threefold, and now it's probably
23 fourfold, the U.S. production has not budged.
24 That's the problem.

25 This next graph just shows that it's

1 not, that the industry hasn't tried. That, in
2 fact, the number of wells drilled per year has
3 followed the producer price pretty well. So,
4 although there was a lot of whining that they're
5 not being able to drill in the best areas and so
6 on and so on, you know, in fact there was a lot of
7 effort going on, almost all onshore.

8 And, of course, consumption has pretty
9 much followed production because you can't burn
10 gas that you don't have. Of course, this adds in
11 Canadian gas and the LNG that we're importing now.
12 But, again, remarkably flat; especially over the
13 last, you know, since the turn of the century.

14 And furthermore, it's been flat in
15 almost all sectors. You know, this is gas
16 consumption by sector. And although you hear a
17 lot of talk about oh, you know, all these new gas-
18 fired power plants must be increasing demand. In
19 fact, some media even report that demand is
20 burgeoning because of all this.

21 And as you can see, that second line,
22 the red line down is the natural gas consumed to
23 generate power. And it's hardly budged. And the
24 reason is we think that a lot of the old
25 inefficient stuff has been pushed out by the new

1 stuff. The latest data I have is that average
2 heat rates are now about 8.5 -- 8500, whereas five
3 years ago they were over 10,000. So there's been
4 remarkable things. But anybody tells you that
5 well, the problem is because of all these natural
6 gas-fired generators, they're wrong.

7 As I said, you know, equilibrium models
8 like the ones the EIA runs and NARGs and the ones
9 that we're running, they're just not credible
10 anymore because they don't take this into account.

11 This is a particular one on your figure
12 16 in chapter 7, reproduces the output of the EIA
13 model. And the consumption, this is what is also
14 comes out of that model on U.S. wellhead price and
15 U.S. production. And for some inexplicable reason
16 that I don't understand, they believe that current
17 prices are going to fall sharply in the near
18 future. But despite that, U.S. production is
19 going to increase.

20 Now how in the world you're going to get
21 more production by paying these guys less I
22 haven't a clue. But it just -- it's one of the
23 incongruities you have with trying to apply an
24 equilibrium model in today's world. So, my advice
25 is to pull figure 16 out of that chapter all

1 together.

2 Those of you who have been around awhile
3 know that I've been talking about natural gas in
4 this forum for a long time. I thought it would be
5 interesting to put the EIA 2000 model up on the
6 screen and compare it.

7 The top line is what they were projected
8 for gas supplies in, you know, five years ago.
9 And, you know, they completely ignored the fact
10 that they were very wrong, and just basically
11 moved that line out five years and said, okay,
12 well, you know, this is what we're going to do
13 now. And I didn't believe them then, and I
14 certainly don't believe them now.

15 So, as I said, an economist referred to
16 this as, you know, market failure because the
17 current gas prices reflect scarcity rents of like
18 three times the marginal cost of production at
19 today's prices. And the equilibrium models like
20 NAMS and NARG just don't work.

21 So this is the title of my weekly
22 column, and my forecast is the gas prices are
23 going to remain at or above current levels until
24 supply expands or consumption declines.

25 The wildcard here, however, is the price

1 of crude oil. That for some inexplicable reason
2 for the last two years on an energy basis the
3 price of natural gas has followed the price of
4 crude oil remarkably well, even though they're
5 about \$2 Btu difference. So there's no fuel
6 switching, and there's no practical reason why
7 those two prices should be tied as closely as they
8 are. But they are.

9 And so there's always the possibility
10 that crude is going to go to \$100 a barrel, and
11 what that would do to the price of natural gas
12 remains to be seen. But it probably wouldn't be
13 good.

14 This is the same figure as the one in
15 figure 16 in that chapter, which shows the
16 projected supplies. And it, as I say, I think
17 they've got the U.S. production wrong. I don't
18 think U.S. production can increase, especially if
19 prices decrease. So I would have put that blue,
20 at best, flat and maybe declining.

21 I think they've got it about right that
22 we can't expect more gas out of Canada, MacKenzie
23 Delta or not. The syncrude producers up there
24 seem to have their eye on that gas to make
25 syncrude.

1 But basically it says, okay, we're going
2 to have to have this big wad of natural gas in
3 order to meet the projected demand. So if you
4 believe their demand projections, well, if you
5 believe that they actually represent future
6 consumption, which I don't, you're going to have
7 to have something like this, or even more, if you
8 don't have more U.S. domestic production.

9 But, you know, it's not at all clear
10 that, you know, how fast the LNG is going to come
11 in. And it's certainly not clear that how much
12 it's going to depress the price. I would argue
13 with Jairam, and I have been arguing with Jairam,
14 that, in fact, the notion that Sempra is going to
15 sell their LNG at \$4 when it's being sold at \$13
16 at Henry Hub is ridiculous.

17 It's just not clear when you add that
18 supply what that's going to do to the scarcity
19 rents that are going to be -- that we see now.

20 Most of us think that the initial LNG
21 facilities will be price-takers, not price-
22 setters. So it's possible that at least for the
23 couple trillion cubic feet of gas that come into
24 the U.S., they're not really going to do much with
25 prices at all.

1 So, I mean those are the data that I
2 work off of. I don't do modeling. Any forecasts
3 that I make are strictly from the seat of my
4 pants. But I think I've been at least as good as
5 the modelers in recent years. So, maybe that's
6 not too bad.

7 And as I said, what I would like the
8 IEPR to do is to communicate a sense of the crisis
9 of this. And with all due respect, I was a little
10 insulted by the press conference this week where
11 the suggestion was, well, if we just all screwed
12 in another cfl that somehow that would take care
13 of things, and the problem would go away.

14 It's much much bigger than that. And it
15 calls for leadership at the very highest level.
16 And I hope that you request that from the
17 Governor.

18 So that's my first plea, is that somehow
19 chapter 7 communicate the sense of crisis that we
20 have.

21 So, I mean, that just summarizes the way
22 what I see as at least the potential future. I
23 don't see prices going below \$10 anytime soon.
24 And as I said, \$20 or more is certainly not
25 impossible. I mean it's already increased, the

1 Henry Hub price yesterday was \$13.30, which is
2 about six times, seven times what it was five, six
3 years ago. And if it can increase seven times,
4 why can't it increase another factor of two or
5 three.

6 So, anyway, the other thing that the
7 IEPR needs to do is to say, okay, if we really
8 want to do something about this, aside from the
9 sort of standard programs that are run by the PUC
10 and so on, what would we do.

11 And I think that the staff did an
12 excellent job, to say take a look at, you know,
13 what you could do on the demand side if you really
14 put your mind to it. And clearly, electricity is
15 the place to start, since that's what half our
16 price goes.

17 And I also agree with staff's analysis
18 that there's not much that California can do about
19 price at all. But, you know, what we can do is
20 reduce the amount of burning and reduce the
21 amount, you know, the cost of gas.

22 So, anyway, on the energy efficiency
23 side, you know, what we'd like to see is a call in
24 the IEPR for, you know, the heroic -- maybe not a
25 good word, although we have an action-hero for

1 Governor, so you know, maybe it does fit, I don't
2 know.

3 You know, we'd like to see an emergency
4 investment program that really goes after the kind
5 of savings that Jairam was talking about. And
6 basically with the intent is that just retire all
7 the old, inefficient equipment that you can and
8 get it unplugged from the grid. And that includes
9 old refrigerators, you know, anything that you can
10 talk people into unplugging.

11 The other thing mentioned, the market
12 price referent for the renewables. I was involved
13 with all those workshops. And, you know, we
14 argued about this and the PG&E said no, no, no,
15 those estimates are way too high. And, of course,
16 they were a lot lower than what we've seen.

17 And I think the Commission should adopt
18 a benchmark price for reducing things like energy
19 efficiency, cost effectiveness tests for the NPR,
20 and so on. I think the strategy used in the IEPR
21 '03 was a pretty good one, where you just say,
22 look, you know, we can argue about how we got to
23 where we are, but here's the way the prices are.
24 And at least for these kinds of measures it's wise
25 to assume that these are going to escalate.

1 And yeah, if you're wrong, okay, you
2 saved too much gas and so on. But I think that it
3 would be useful to have a benchmark price that you
4 guys set.

5 And I think that using, you know, maybe
6 the near 12 months, the near 24 months on the
7 NYMEX with some kind of escalators thereafter is
8 fairly reasonable. That's kind of what we did
9 with the MPR-2.

10 The other thing is that the immediate
11 goals of these efficiency programs should really
12 reflect all cost effective measures, which is
13 actually what the loading order requires. And
14 that's not the case now.

15 If you look at sort of the programs that
16 people have up and running, they target a very
17 small fraction of the total potential targets.
18 Typically, you know, a few percent, maybe 5
19 percent. There's no reason why you just can't, we
20 can't, you know, accelerate that in a few years
21 and basically just get it all done.

22 And last, somebody else alluded to I
23 think this morning, is that all gas and electric
24 load-serving entities need to be required to
25 reduce consumption. I mean, first of all, it's

1 ineffective to just target the regulated entities
2 and ignore the munis. It should be a statewide
3 effort and everybody should play.

4 The other recommendation is on the
5 renewable energy front. And our organization has
6 been involved trying to accelerate the rate at
7 which we harness the state's ample renewable
8 energy resources for more years that I like to
9 think.

10 And the frustration is, you know, --
11 anyway, we just need to get this stuff into the
12 grid as fast as humanly possible. And the current
13 process, as it cranks on and on and on, just isn't
14 working. And we need to sort of step back and
15 say, how can we make this program work.

16 The RPS, itself, has become a regulatory
17 quagmire with arguments about transmission cost
18 adders, who's going to buy what, who's going to
19 build what transmission and on and on and on. And
20 what we need are megawatts and not megawords, as
21 my boss likes to say.

22 And just for example, if we could
23 finally harness the estimated wind capacity at
24 Tehachapi and the geothermal capacity at Salton
25 Sea, we'd displace about \$2.5 billion worth of gas

1 at \$10. So, I mean there's this huge potential
2 savings on the gas side, you know, if we would do
3 this.

4 And, again, you know, our recommendation
5 would be that all load-serving entities must
6 participate. And delays just shouldn't be
7 tolerated.

8 This last is still sort of a work in
9 progress. It's not my organization's policy, but
10 I think at some point, and maybe soon, depending
11 on what prices do, the state has to think about a
12 strategy not unlike what it did with the
13 electricity crisis a few years ago. And just step
14 in and sign contracts for renewable development,
15 themselves, and for transmission. And bypass the
16 RPS and just get it done as fast as they can.

17 Let me say that's not a formal policy
18 position, but a lot of us that are frustrated at
19 the RPS, you know, think that if the state wants
20 this to happen, and it should, it should just step
21 up and make it happen. And as they did,
22 distribute the cost of the program around to the
23 various load-serving entities.

24 So, that's my presentation. As I say, I
25 think what I've tried to do is give some idea

1 about how it is that we got into the mess that
2 we're in. Also I don't see those graphs changing
3 rapidly anytime soon. And are liable to go, you
4 know, production to go up -- down, and prices to
5 go up, as the other way around.

6 And I think the IEPR, you need to re-
7 read chapter 7 with a clear eye and say, ask
8 yourselves, does this really communicate the
9 crisis that California's natural gas situation is
10 in. And does it really tell people that are
11 looking to us for an answer, what we can do about
12 it.

13 Anyway, we will file formal comments,
14 probably with more text than you're ever going to
15 read, next week. But I'd be happy to answer
16 questions if you got them.

17 PRESIDING MEMBER GEESMAN: Well, there's
18 quite a bit there, Rich.

19 DR. FERGUSON: It's all from EIA.
20 Somebody accused me, I believe it was a couple
21 years ago, we had the joint hearing December down
22 in San Francisco with the PUC, and there was a
23 couple of FERC guys.

24 And I was putting graphs like this up on
25 the board. And they said, what! what! You know,

1 they had not realized either that this is the
2 historical data that, you know, EIA has done.
3 They were flabbergasted that the electricity loads
4 hadn't changed.

5 So, yeah, it's worth looking back and
6 sort of see where we've been, I think.

7 PRESIDING MEMBER GEESMAN: My
8 recollection is that you made a similar critique
9 of our staff forecast in the 2003 IEPR cycle.

10 DR. FERGUSON: And two years before
11 that; and two years before that, and two years
12 before that, I think.

13 PRESIDING MEMBER GEESMAN: Just by my
14 own measurement I think, over the course of the
15 last two years, if anything, you may have under-
16 forecasted price levels. Certainly our staff
17 forecast, which the Commission adopted, failed to
18 capture what's actually happened.

19 Your suggestion, though, for setting a
20 benchmark, we did, in 2003, tack on the NYMEX
21 price in the early years. We bridged that then to
22 our fundamental forecast. The approach taken int
23 he MPR process at the PUC, and I take it as a
24 consensus of the input from the parties, was to
25 focus on escalation rates after I think about a

1 24-month time horizon on the NYMEX.

2 DR. FERGUSON: Yeah, we argued about
3 well, should it be 26, 36 or 24, or you know, --

4 PRESIDING MEMBER GEESMAN: Well, I don't
5 have any problem with the 24, just based on
6 liquidity. But I guess what I'd like to draw you
7 out a bit on is you think it would be better to
8 tack on an escalation rate rather than a bridge to
9 the fundamental forecast at the end of that NYMEX
10 period.

11 DR. FERGUSON: As I said, I think it's
12 going to be a long time before the equilibrium,
13 before this market is back in equilibrium again,
14 and we're actually paying the marginal price of
15 the cost of production.

16 So, you know, my tendency, you know,
17 would be to err on the side of caution on the
18 kinds of numbers that you need to support cost
19 effective actions.

20 I mean that's been the problem,
21 actually, in the past is that we've used too low
22 numbers. So, as I think NRDC pointed out, if you
23 get them wrong, a measure that is really cost
24 effective in any kind of a reasonable gas price
25 forecast, won't be cost effective if you low-ball

1 the numbers.

2 So I think if you really are out to, you
3 know, if you're really out to decrease
4 consumption, I mean that's sort of the first
5 thing. Does California really want to cut its gas
6 bill or doesn't it. And if you do, then you would
7 err on the side of a high price.

8 PRESIDING MEMBER GEESMAN: Yeah, I guess
9 the concern I have with an outcome-driven approach
10 -- I understand which way that ought to slant on
11 the electrical side. On the transportation side
12 we just heard from the National Gas Vehicle folks
13 it ought to slant the other way.

14 DR. FERGUSON: I understand why they say
15 that, too.

16 PRESIDING MEMBER GEESMAN: Yeah, well,
17 and they understand why you say what you're
18 saying. That leaves us in the middle.

19 DR. FERGUSON: That's why you make the
20 call.

21 PRESIDING MEMBER GEESMAN: But it --

22 DR. FERGUSON: That's why I say, I think
23 the real decision is do you want to try to depress
24 consumption or don't you. I mean, if you do, you
25 know, then you're going to err on one side. And

1 if you don't care, then you're going to err on the
2 other side.

3 But I mean it's a crap-shoot either way.
4 Frankly, I try to stay out of the price
5 forecasting business. You know, I like to sort of
6 try and see what's possible. But especially with
7 crude out there, who knows what crude's going to
8 do. And who knows why it affects the price of gas
9 so much. But it's just a wildcard that -- I mean
10 it's a policy call. I don't think you're going to
11 generate a bunch of numbers that are going to
12 prove you right.

13 PRESIDING MEMBER GEESMAN: Okay, I
14 suspect --

15 DR. FERGUSON: I'm not being very
16 helpful, I understand that.

17 PRESIDING MEMBER GEESMAN: No, I suspect
18 you're right. Okay. Any questions?

19 Thanks very much.

20 ASSOCIATE MEMBER BOYD: Thanks, Rich.

21 DR. FERGUSON: Sure.

22 PRESIDING MEMBER GEESMAN: Joe Lyons,
23 California Manufacturers and Technology
24 Association.

25 MR. LYONS: Commissioners Geesman and

1 Boyd, and Staff, Joe Lyons with the California
2 Manufacturers and Technology Association, which is
3 a member of CalCASE, the Californians for Clean
4 Affordable Safe Energy, a broadbased statewide
5 coalition to build awareness and support for
6 bringing additional natural gas supplies to
7 California.

8 I will be brief. The draft IEPR
9 underscores the lack of adequate natural gas
10 supply in California, and the potential of LNG to
11 bring additional natural gas supplies to the
12 state.

13 The report also notes that competition
14 for the limited supply of natural gas is driving
15 the prices higher. Natural gas prices are more
16 than doubled what they were in 2000 and climbing.

17 It is imperative, we believe, that
18 California immediately address the growing
19 competition for natural gas supplies and the
20 rising prices that impact our state's economy.

21 Gaining access to the global supply of
22 natural gas is essential to insure a reliable
23 supply of power to California's homes and
24 businesses, and to fuel the state's economy.

25 LNG is the key, the key to dealing with

1 the high prices we are paying today, and the
2 shortages we will be facing in the future. If we
3 do not move now to bring LNG to California, the
4 gap between supply and demand will continue to
5 widen. And consumers, both large and small, will
6 continue to pay the price with all the attendant
7 consequences for our state's economy.

8 Thank you.

9 PRESIDING MEMBER GEESMAN: Thanks, Joe.
10 That's basically the policy we articulated in
11 2003. I don't envision it changing in 2005.

12 Barbara George, Women's Energy Matters.

13 MS. GEORGE: Thanks, I just wanted to
14 make a quick comment this afternoon. One little
15 wakeup quiz. What is the highest energy user, two
16 top highest energy users in the home?

17 Any takers? What?

18 UNIDENTIFIED SPEAKER: Heating and air
19 conditioning.

20 UNIDENTIFIED SPEAKER: Water heating.

21 MS. GEORGE: Heater and water heater.
22 Yeah.

23 The CPUC has put together a PAGette for
24 studying high efficient water heaters. And a
25 PAGette is a small PAG. And I just wanted to let

1 you know, if you didn't realize, that the PRG
2 system exists in the energy efficiency business,
3 also, side of the meter we've got PAGs, which are
4 program advisory groups. And PRGs, program review
5 group. And basically the PAGs are allowed to come
6 in and make proposals. The public can come to
7 that. The PRGs are a secret committee that review
8 the bidding for the programs.

9 So we are not going to know on what
10 basis those contracts are awarded. And, once
11 again, TURN, unfortunately, and NRDC, I believe,
12 are the public interest representatives on those
13 PRGs. They do get guaranteed intervenor funding
14 for that work.

15 What I would like to propose is that the
16 Energy Commission take another look at a
17 technology which has been adopted by at least
18 three countries in the world as a mandatory
19 standard, and that's solar water heaters.

20 The PAGette for water heating is only
21 looking at high efficiency water heaters, but not
22 no energy use water heaters, which is what you get
23 with a solar water heater.

24 I know that the Energy Commission has
25 established some standards. I am not clear,

1 however, whether the problem of the '80s has been
2 solved, which was that there were not enough
3 technical specifications to avoid some of the more
4 problematic installations which gave solar water
5 heaters a bad name during the '80s. That is a
6 pretty simple problem that could be easily solved.
7 And I would ask for a Marshall plan to get us some
8 solar water heaters this winter, as soon as
9 possible.

10 I do not believe that that \$20 million
11 extra gas energy efficiency program has any solar
12 water heaters in it.

13 PRESIDING MEMBER GEESMAN: You know, the
14 CPUC launched a Marshall plan for solar water
15 heaters in the early 1980s that was --

16 MS. GEORGE: Yes, I understand that.

17 PRESIDING MEMBER GEESMAN: -- actually
18 the Leonard Grimes plan. It was a pretty good
19 program as designed. People lost interest in it
20 relatively quickly, as natural gas prices came
21 down. And I'm not certain that any of us have
22 done the appropriate forensic work to determine
23 what some of the programmatic flaws in that design
24 were.

25 There are a lot of things repeated by

1 anecdote as to what the problems were. But as we
2 stand on the verge of launching a similar Marshall
3 plan in the PV area, it might behoove all of us to
4 familiarize ourselves a little bit more with that
5 prior experience with solar water heating.

6 And I had understood Commissioner
7 Peevey's assigned commissioner ruling in the solar
8 area as suggesting that there would, indeed, be a
9 solar water heating program as part of the solar
10 initiative, as well.

11 MS. GEORGE: This is a confusing factor.
12 Oftentimes solar water heaters get lost in between
13 the renewable side and the energy efficiency side,
14 because you can look at it one way as --

15 PRESIDING MEMBER GEESMAN: Yeah.

16 MS. GEORGE: -- a production and the
17 other way as efficiency. And so nobody actually
18 takes it on.

19 The utilities had it on their books as a
20 program. I have an associate who tried from
21 inside PG&E to actually get them to do solar water
22 heaters, but they had absolutely no interest in
23 it.

24 PRESIDING MEMBER GEESMAN: And this
25 PAgette you speak of is in the efficiency program?

1 MS. GEORGE: Yes, there has been a
2 PAGette established in the efficiency programs for
3 efficient water heaters, basically to study. I
4 don't believe that they're doing a large-scale
5 installation. I believe they're doing -- there's
6 a fellow from LBL who's in charge of it, and I
7 think it's primarily a study, not a production-
8 oriented program.

9 I would also like to update you on
10 something which I mentioned earlier this summer,
11 which is that that best third-party gas-savings
12 energy contractor in California has been under a
13 year-and-a-half persecution at the hands of the
14 Energy Division and the Southern California Gas.

15 This program is the SESCO-gas-only
16 program of 2002-2203. It was one of the highest
17 cost effective programs. It was also the first
18 one completed and measured in the fall of 2003.

19 SESCO is also a consultant to Women's
20 Energy Matters; did a lot of work with us on
21 proposing more efficient -- improvements in energy
22 efficiency programs in San Francisco and around
23 the state.

24 SESCO also produced the analysis of the
25 cost effectiveness of all third-party and utility

1 programs, the ranking of programs, which I have
2 submitted as testimony. That fall it applied to
3 do a 2004/2005 program. And suddenly all sorts of
4 questions were raised about its completed program.
5 During the program there had been no questions
6 raised.

7 SESCO had requested to do more efficient
8 showerheads than the utilities were doing at the
9 time. It made that request because the
10 Metropolitan Water District in Los Angeles was
11 requiring more efficient waterheads. And so even
12 though the utilities did not adopt that until the
13 following year, SESCO put in better showerheads.
14 Now it's being challenged on the fact that it did
15 more efficient showerheads than it was supposed to
16 do, even though it had notified the Commission, as
17 it was supposed to do.

18 Another thing that Energy Division
19 raised was they said that this contractor paid its
20 own measurement contractor. Of course, that was
21 the system that was in place at the time for all
22 programs. And SESCO had been critical of the
23 utilities measuring their own programs. But that
24 was what everybody was supposed to do.

25 Energy Division has pursued this

1 investigation for one-and-a-half years. The data
2 requests have been so extensive that it's been
3 very difficult for SESCO to work as a consultant.
4 Obviously they were turned down for their
5 2004/2005 program. The Energy Division refused to
6 release the report by Southern California Gas on
7 the program. We believe there are no complaints
8 in the report, but that report has not been
9 released.

10 The Energy Division also has refused to
11 release 15 percent of the funds which is the final
12 payment. But not only that, the Energy Division
13 is demanding the most Draconian penalties ever
14 demanded of any efficiency program. Never imposed
15 on any other contractors, and certainly never
16 imposed on any utility programs, in spite of
17 massive failure of those programs.

18 SESCO is being required, if the
19 investigation ever is completed and they are found
20 somehow wanting, they're requiring SESCO to refund
21 the \$2 million of the program, which would be a
22 serious blow to the business.

23 And not only that, they want to ban
24 SESCO from ever working in California again.

25 So this is what we're doing to the best

1 gas program contractor in California. And I'd beg
2 you to look into this issue, because I have not
3 been able to get any action at the CPUC on it.

4 PRESIDING MEMBER GEESMAN: Thank you
5 very much, Barbara.

6 MS. GEORGE: Thanks.

7 PRESIDING MEMBER GEESMAN: Anyone else
8 care to address us? Anybody on the phones?

9 Okay, I think we're done. I want to
10 thank everybody for hanging in there, it's been a
11 long day.

12 (Whereupon, at 3:26 p.m., the hearing
13 was adjourned.)

14 --o0o--

CERTIFICATE OF REPORTER

I, PETER PETTY, an Electronic Reporter,
do hereby certify that I am a disinterested person
herein; that I recorded the foregoing California
Energy Commission Hearing; that it was thereafter
transcribed into typewriting.

I further certify that I am not of
counsel or attorney for any of the parties to said
hearing, nor in any way interested in outcome of
said hearing.

IN WITNESS WHEREOF, I have hereunto set
my hand this 13th day of October, 2005.

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